Mobile Money Services Study

Country Report with In-Country Findings for:

- Romania
- Georgia
- Ukraine
- Turkey
- Russian Federation
- Kazakhstan
- Kyrgyz Republic
Document Security

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EBRD Mobile-Money Country Report January 2013
1. OVERVIEW OF MOBILE MONEY SERVICES

1.1. Introduction

Rapid developments in mobile phone technology, network capability and availability, and consumer adoption are providing unprecedented opportunities for businesses and governments alike to offer new types of products and services to the market, consumers and citizens. The same radical forces of technology and service innovation that enabled emerging market countries to skip the fixed telephone line infrastructure investments are now at play to potentially revolutionise the world of financial services and to financially connect the world through mobile. According to The World Bank, remittance flows to the developing world are set to reach $406 billion in 2012 (a 6.5% rise on last year) with a rise in mobile remittances.

In 2012 the GSM Alliance was tracking approximately 144 live deployments and 105 planned deployments of mobile money services globally. Mobile money services typically include the provision of mobile banking, mobile money transfer and mobile payment services. These services are centred on the movement of money, but are considered to be part of the more widely defined mobile financial services, which can include other financial services like insurance, loans etc.

This study includes an analysis of mobile money services across EBRD’s core countries of operation including CEE, CIS and North Africa. The primary purpose of the study is to provide EBRD bankers with a fact base on what the current situation of mobile money services looks like and what obstacles and opportunities for the establishment and further development of mobile money services exist in these countries.

It should be noted that mobile phone technology, designs and user preferences are rapidly changing and that the lines between mobile phones and other mobility devices like tablets are being blurred. While this study is primarily focused on mobile feature phones and mobile smart phones, many of the concepts will also hold true for these other types of mobility devices.

1 http://www.gsma.com/developmentfund/programmes/mobile-money-for-the-unbanked/
1.2. Taxonomy of Services

In order to ensure a common understanding of the core concepts this section describes the key types of mobile money services. As no commonly agreed taxonomy of services is in existence anywhere in the literature or industry publications, the authors of the study developed the following taxonomy based on industry experience, publications and academic literature.

Mobile Money Services are divided into the following three groups:

- Mobile Banking
- Mobile Money Transfer
- Mobile Payments

Mobile Banking includes informational services and transactional services linked to a regular bank account and delivered via a mobile app, mobile website or simply via 2-way SMS/USSD messaging. It is usually offered by financial services organisations that treat mobile as an additional channel for convenient access for existing customers or to extend their reach into new customer segments. This particularly holds true for countries with a mature financial services industry.

Mobile Money Transfer includes domestic money transfer and international remittances delivered where one actor in the value chain uses a mobile phone (e.g. mobile to cash or cash to mobile). These services are usually provided by a remittance service providers and telco operators, but can also be provided by regular financial services organisations. Contrary to mobile banking these services are not regularly linked to a bank account, and therefore, don't require a full banking relationship.

Mobile Payments includes proximity payments and remote payments. Proximity mobile payments involve two phones or a phone and a merchant point of sale terminal communicating via contactless, near field communication (NFC) or barcode technologies to carry out a payment transaction. Remote mobile payments refer to transactions without a physical interaction between phones or terminals, but rather via SMS, USSD or data connectivity. Both types of services usually involve some kind of electronic wallet (also called stored value account) that is linked to a mobile phone account, a bank account, a prepaid credit card, a regular credit card, a debit card or another electronic wallet.

Typically Mobile Banking is provided by a financial services organisation, while Mobile Transfers and Mobile Payments are offered by financial services organisations, mobile operators and alternative payment services providers alike. However, several successful mobile transfer and payments services companies have started to roll out basic mobile banking services without having to be fully regulated financial services organisations.
<table>
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<th>Service Categories</th>
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<th>Use Cases</th>
<th>Device Capability Needed</th>
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<td>Servicing (fraud, disputes, enquiries)</td>
<td>SMS, Mobile Browser, Mobile App</td>
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<td>Mobile Banking</td>
<td>Informational / Servicing</td>
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<td>Pay your bill (credit card)</td>
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<td>Transfer money</td>
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<td>FeaturePhone, Smartphone</td>
<td>2G, 3G, 4G</td>
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<td>Loans/Credit Line</td>
<td>SMS, Mobile Browser, App</td>
<td>FeaturePhone, Smartphone</td>
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<td>Balance Transfer (credit card)</td>
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<td>FeaturePhone (WAP-enabled), Smartphone</td>
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</tr>
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<td>Remote Deposit Capture</td>
<td>In-built camera</td>
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<tr>
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<td></td>
<td>M2C (mobile to cash)</td>
<td>Money transfer</td>
<td>SMS, Mobile Browser, App</td>
<td>FeaturePhone, Smartphone</td>
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<td></td>
<td></td>
<td></td>
<td>C2M</td>
<td>Money transfer</td>
<td>SMS, Mobile Browser, App</td>
<td>FeaturePhone, Smartphone</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>M2M</td>
<td>Money transfer</td>
<td>Mobile Browser, App, Proximity</td>
<td>FeaturePhone, Smartphone</td>
</tr>
<tr>
<td>International</td>
<td>M2C (mobile to cash)</td>
<td>Remittance</td>
<td>SMS, Mobile Browser, App</td>
<td>FeaturePhone, Smartphone</td>
<td>2G, 3G, 4G</td>
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<tr>
<td>C2M Remittance</td>
<td>SMS, Mobile Browser, App</td>
<td>FeaturePhone, Smartphone</td>
<td>2G, 3G, 4G</td>
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<tr>
<td>M2M Remittance</td>
<td>Mobile Browser, App</td>
<td>FeaturePhone, Smartphone</td>
<td>2G, 3G, 4G</td>
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<table>
<thead>
<tr>
<th>Remote</th>
<th>P2P</th>
<th>Convenience Payments</th>
<th>SMS, Mobile Browser, App</th>
<th>FeaturePhone, Smartphone</th>
<th>2G, 3G, 4G</th>
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</thead>
<tbody>
<tr>
<td>POS Mobile as Point of Sale (PoS)</td>
<td>SMS, Mobile Browser, App</td>
<td>Smartphone</td>
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<tr>
<td>m-Commerce Authorisation Payments (using Numeric Code)</td>
<td>SMS</td>
<td>FeaturePhone</td>
<td>2G, 3G, 4G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>m-Commerce m-Parking, m-Tolling etc.</td>
<td>a. SMS b. USSD c. Mobile Browser d. Apps</td>
<td>FeaturePhone, Smartphone</td>
<td>2G, 3G, 4G</td>
<td></td>
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</table>

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<thead>
<tr>
<th>Mobile Payments</th>
<th>P2P</th>
<th>Contactless Payments, Contactless Payments Acceptance</th>
<th>Bluetooth, Infrared, NFC, Add-On Accessory</th>
<th>Smartphone</th>
<th>3G, 4G</th>
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<tr>
<td>G2P Government-to-person - Social transfers, Wage and Pension Payments</td>
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<tr>
<td>POS Mobile as Point of Sale (PoS)</td>
<td>Add-on accessory</td>
<td>Smartphone</td>
<td></td>
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</tr>
<tr>
<td>m-Commerce Contactless Payments, Contactless Payments Acceptance</td>
<td>NFC Chip, NFC Stickers, Memory Card</td>
<td>Smartphone</td>
<td>3G, 4G</td>
<td></td>
<td></td>
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<tr>
<td>m-Commerce M-Ticketing (using Bar-Code, Numeric Code)</td>
<td>In-built camera, App with Barcode image</td>
<td>Smartphone</td>
<td>3G, 4G</td>
<td></td>
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</tr>
</tbody>
</table>

*Figure 1, Taxonomy of Mobile Money Services*
1.3. Banking and Payment Conversion Chains

Mobile money services are not necessarily independent from each other within the group or across groups. On the contrary, depending on the maturity of a country’s financial services market, different services are more likely to prevail than others. The conceptual conversion chains below attempt to explain the dependencies and relationships between different types of services; however, they shouldn’t be seen as hard and fast rules that apply in every market.

1.3.1. Unbanked to Banked Conversion

This basic model describes primarily a linear progression from unbanked to banked. Typically this model applies to developing countries, although it has some validity in remote areas of developed countries if a large disparity exists within the country.

Governments attempt to improve the flow of goods and services for consumers and businesses by improving the access to monetary instruments in general but primarily cash.

Often economic development is accompanied by domestic or international migration of labour resulting in an increasing demand for money transfer services either back home to the countryside or cross border. Typically domestic transfer systems and agent networks are established first in order to enable efficient access to cash in and cash out facilities. These services initially are cash based using local agents. But as the volume, maturity and sophistication of the services increase mobile to cash, cash to mobile and ultimately mobile to mobile transfer systems get established.

As local, domestic (inter-city) and international trade develops further, consumers increasingly seek out alternative means of payment for goods and services. Hence,
peer to peer payments between consumers or merchants, point of sales payments from consumers to merchants or government to person payments get established. Mobile payments can take the simple form of remote payments via SMS or USSD primarily in developing countries. And in developed countries banks and merchants establish proximity payments infrastructure to even more increase the convenience and speed of payment, as well as providing anytime, everyone access to funds for consumers.

And finally, once consumers move beyond the simple electronic wallets and basic accounts and will join a regular banking relationship with a financial services organisation.

1.3.2. Cash to Mobile Wallet Conversion

This basic model describes primarily a linear progression from cash to mobile wallet as typically observed in developed countries with mature financial services markets.

In developed countries consumers and citizens typically get their salaries, pension or welfare funds directly paid into a current account. Initially consumers access their funds via a bank branch network or post offices for a cash withdrawal.

To move from cash as the primary, ubiquitous means of payment banks try to increase the penetration of debit cards. Consumers initially again use these debit cards to withdraw cash from cash machines, which provides some benefit in terms of cost reduction for banks and improved access to funds for consumers.

Merchants start to invest in point of sale payment acceptance infrastructure (either with dedicated payment terminals or mobile point of sale smartphones) and jointly with banks try to educate or convince consumers to use their debit cards and later on credit cards at point of sale. As consumer confidence in card transactions at point of sale increases and the number of merchants accepting cards, the number of cashless transactions increases.
Finally, banks and merchants invest in proximity payments infrastructure and peer to peer payment applications to even more increase the convenience and speed of payment, as well as providing anytime, everyone access to funds for consumers.
1.4. Key Benefits of M-Money

1.4.1. Socio-economic benefits:

1.4.1.1. Increase financial inclusion

According to a 2010 World Bank study, almost 2.7 billion people in this world lack access to financial services. The formal financial services that the unbanked population is most commonly deprived of include savings accounts, bill payment, an official line of credit and insurance products. M-Money offers new business models and a new channel for increasing financial inclusion including to those at the base of the pyramid. The cost of the m-money services are typically lower, transactions can be made instantly from anywhere, and customers no longer need to be so reliant on cash. Increased economic activity could also lead to GDP growth. M-money providers could tie up with micro-finance institutions for improved credit management and accessibility in the rural areas.

1.4.1.2. Increase socio-economic development

Families and business will be better equipped to withstand the unexpected and improve their lives through education, health and business activities. M-Money services could provide improved access to healthcare through simpler payments and health insurance, increased opportunities for all family members to access banking and control allocation of funds within the household, home insurance, agricultural insurance etc. Enabling the transfer of money from economically active areas to under-developed areas could balance economic disparities and reduce social tensions. Most importantly, m-money could provide access to capital (remittances or micro-credit) enabling rural-dwellers to build assets, conduct business activity etc. M-Money could also become a channel of interaction for the government with citizens, facilitating cost- and time-efficient welfare and subsidy disbursement, as well as enabling e-Government services such as credit applications and tax payments.

1.4.1.3. Reduce the shadow economy footprint

The ‘shadow economy’, which involves conducting legal, commercial activity and hiding it deliberately from public authorities, is widely prevalent in Central/Eastern Europe and Central Asia. A recent study, sponsored by Visa, estimated it at €2.2 trillion for Europe in 2011. It represents more than 30% of GDP for the countries
included in this study. Cash is the most important enabler of the shadow economy, because it’s easy to use and difficult to trace. M-payment systems could make participating in the shadow economy more difficult, as these systems produce documentation of the transactions enabling authorities to track commercial activity. Typically countries with high levels of e-payment and m-payment usage have smaller shadow economies than those with minimal levels of electronic payments.

Moreover, a large proportion of remittance flows goes through informal channels facing risks of misuse for money laundering (ML) or financing of terrorism (FT) activities. The widespread adoption of mobile money transfer services could make it easier for authorities to keep a track on international/domestic money transfer flows.

1.4.1.4. Security of cash

A mobile wallet could enable the population to store monetary value in the electronic form making it a safer (and more convenient) way to carry money around, particularly in regions where security is an issue.

1.4.2. For Financial Institutions

1.4.2.1. Operational cost optimisation

EBRD should, when approaching a financial institution, emphasise the benefits of the bottom-line versus the top-line growth (portfolio growth) Cutting costs is not only about margin; seeking lowest cost position in the market also should deter competitors from engaging in value destroying price wars thus protecting the revenue base. This is mainly about replacing more expensive channels and devices with cheaper and thus more accessible mobile solutions - otherwise referred to as the ‘deployed base view’. This is also beneficial from the consumer’s perspective making access to financial services more affordable.

1.4.2.2. Increase market penetration

If M-banking can serve primarily to reduce the costs of deploying customer touch points into lower income or more remotely located population segments then portfolio growth can be increased among the unbanked. So using mobiles as ATMs can enable SME owners to become Cash-In/Cash Out channels, Mobile as a POS can serve to substitute cash and electronically capture transactions that can in turn
be ‘sold’ to government agencies tracking turnover for statistical purposes (to enable more smart economic policy making) or improving transparency of Banking customer’s financial behaviour (transferring the cash only grey/black market into the mainstream) giving them opportunities to sell credit products.

1.4.2.3. Sell more services to existing customers and new customers

Develop new services that target ‘Unmet Needs’ of existing customers. These new services could exploit the new functionality available to mobile phones regardless of level of sophistication. For example the disbursement of micro loans through SMS-driven applications or m-Parking services. Banks can now establish presence in newer geographic areas with new customer segments without having to set up brick and mortar branches.

1.4.2.4. Retention of most valuable customers

Trying to protect the 20% of customers who bring in 80% of a bank’s good-will value requires offering them a quality and breadth of service that will make them less vulnerable to leave. Since individual services are rarely unique to a bank they are easily replicable. So a bank must imbed non-unique services within a unique customer experience. Having an informational as well as transactional capability within a customer’s mobile, the banks can propose new services to their customers in a more targeted fashion. Banks also can maximise the immediacy of the mobile environment to extend the benefits of control and choice and thus convenience across a bank’s product range.

NOTE: this convenience issue is more of a hook for those markets where personal time is at a premium (the developed world) and for those markets where geographic remoteness and the desire for anonymity (from government) are obstacles (the CEE).

1.4.3. For Telecom Operators

1.4.3.1. Reduction in Churn

In today’s market, consumer retention and churn abatement are key concerns for mobile network operators. Economic conditions are no better for consumers than they are for operators, and are not expected to improve in the short-term. This has a significant effect on consumer confidence, with consumers optimising mobile
usage/spend and constantly looking for value-based plans in the market. While it is difficult to attribute direct impact of churn reduction on bottom-line, analysis of few successful mobile money-deployments shows a reduction in churn by customers availing mobile-money services along with airtime from a particular mobile operator.

1.4.3.2. Increase in revenue by direct selling and/or cross-selling
The customer fees charged by mobile operators to send money and to withdraw money typically constitute the direct form of revenue for them. Moreover, the establishment of the pay and consume model in the form of mobile-money channel allows operators to cross-sell additional products. The establishment of mobile-money services has also seen a rise in carrier-billing opportunities for mobile operator by selling third-party products/services.

1.4.3.3. Engaging with customers and learning from them
The mobile money channel also gives operators the opportunity to interact with customers to better understand how they operate. This direct relationship that the operator has with the customers allows it to establish an informal way of establishing credit-worthiness of its customers in the absence of such data in the not so financially mature markets. This can help the operator to lower its customer risk profile significantly.

1.4.3.4. Decrease in Airtime distribution costs
Telecom operators offering mobile money services can sell airtime using the platform potentially saving on the airtime distribution costs. Traditional methods for airtime top-ups includes the use of scratch-cards which need to be manufactured and distributed to the agents or retail outlets. Moreover, agent commissions are variable costs tied to revenue generation. Moving customers to an ‘electronic-only self-serve’ model results in significant cost savings for the telecom operators.
1.4.4. For Merchants and Businesses

1.4.4.1. Improved Payment and Collection mechanism

Merchants and small business owners can use the mobile money platform to receive money from customers, pay suppliers and employees while reducing the cost and inconvenience of using cash. By encouraging remote payments, improving point-of-sale experiences and increasing those opportunities through marketing efforts, merchants can also increase revenues and use mobile services to offer new opportunities to customers.

1.4.4.2. Transformation in Supplier Distribution

Advancements in Mobile Payments have allowed supply chain participants to electronically settle back-end payments associated with dissemination of goods. Rather than waiting months for reimbursement by the retailer, distributors now can be paid within minutes of delivering goods by simply using mobile money. For e.g. Distributors can enter relevant voucher codes into their mobile phones at the time of delivery. This code triggers an immediate electronic settlement into the distributors’ mobile money accounts.

1.4.4.3. Improvement in transparency

Mobile money can not only help automate the inventory tracking process, it can also increase transparency in accounting and reduce employee leakage. Merchants and businesses also have the option of distributing payroll to employees via the mobile. This has the potential to reduce payroll processing costs, risk of cash handling and increasing employee convenience.

1.4.5. For Utilities

Mobile money can play an important role in the periodic billing and collection of dues for utility companies. It not only reduces the cost of payment collection and processing but can also increase timeliness of payment while offer customers with greater convenience. Mobile payment options , if made available to customers, could lead to an increase in loyalty among customers who receive similar levels of service from competing utility companies.
1.5. Building Blocks of Mobile Money Services

The success of mobile money services depends on completeness and maturity of several key building blocks that make up the mobile money value chain. In order for basic services to be available, each of the following five building blocks needs to be present in a market:

1. Customer Considerations
2. Mobile Capabilities
3. Financial Services
4. Mobile Money Enablers
5. Political and Economic Environment

The first three building blocks address the core capabilities that need to be available for consumers. Mobile Money Enablers have a support function primarily to Mobile Capabilities and Financial Services, but can also play a secondary role towards the end customer. Political and Economic Environment underpins all building blocks.

![Figure 4, Mobile Money Building Blocks](image-url)
1.6. Key Success Criteria for Mobile Money Services

For each of the building blocks a set of key success factors (descriptors, indices, key performance indicators etc.) can be identified. There is no quantitative analysis framework that can automatically calculate the likelihood of success of each of the mobile money services due to the following reasons:

- The interplay of primary building blocks with enablers and overall environment create a variety and multitude of opportunities to establish mobile money services
- Innovations in technology, services and business models for mobile money services happen on a daily basis, hence, it’s difficult to codify a set of likely successful business models into a simplistic quantitative model
- Market experience has been that it’s difficult to replicate a business model that was successful in one country in another one

However, the collection of key success factors across the EBRD countries of operation will provide EBRD and the project team with a solid basis of a country by country analysis of challenges and opportunities for mobile money services.
### Mobile Money Opportunity Attractiveness Framework - for Country level analysis

<table>
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<tr>
<th>Customer Consideration</th>
<th>Mobile Capabilities</th>
<th>Financial Services</th>
<th>Mobile Money Enablers</th>
<th>Political and Economic Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Development Indicator</td>
<td>Overall Telecom/ICT Investment</td>
<td>Investment in FS infrastructure</td>
<td>Platform Providers</td>
<td>Political Stability</td>
</tr>
<tr>
<td>Consumer Adoption</td>
<td>International Investment</td>
<td>Regulation</td>
<td>Service Providers</td>
<td>Growth</td>
</tr>
<tr>
<td>Perceived trust in Mobile and Banking services</td>
<td>Network capabilities (2G, 3G, USSD etc.)</td>
<td>Fraud/Risk</td>
<td>Scalable Agent Network</td>
<td>Productivity</td>
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<tr>
<td>Attitude towards Financial Services</td>
<td>Mobile Coverage</td>
<td>Market Competition</td>
<td>M-Money Consortium coverage</td>
<td>Ease of doing business</td>
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<td>Consumer Protection</td>
<td>Device Penetration</td>
<td>E-Money (Virtual Licensing)</td>
<td>Entrepreneurial Environment (HML)</td>
<td>Free-market access</td>
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<tr>
<td>Social Environment and Readiness</td>
<td>Regulation in Telco Infrastructre</td>
<td>PayPal Index</td>
<td>Skilled Labour availability</td>
<td>Liberalisation</td>
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<td>e-Readiness</td>
<td>Ease of Policy-making in Telecom</td>
<td>Banked vs. Unbanked</td>
<td>Compliance and Enforcement</td>
<td>Cash circulation / money supply</td>
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<tr>
<td>Know Your Customer (KYC) Regulation</td>
<td>Market Competitiveness</td>
<td>Existing Services and Products</td>
<td>Transparency/Security</td>
<td>Population</td>
</tr>
<tr>
<td>Consumer Needs (Gaps)</td>
<td>Presence of MVNOs</td>
<td>Ease of Banking Channel Access and Distribution</td>
<td>Payment terminals / alternative payment providers (physical)</td>
<td>Shadow economy</td>
</tr>
<tr>
<td>Financial Literacy Indicator</td>
<td>Technology/Innovation (HML)</td>
<td>Availability of Money services to population</td>
<td>Augmented Services</td>
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<tr>
<td>Needs of SMEs/sole Traders/Businesses (Gaps)</td>
<td>Device capabilities</td>
<td>Availability of Proxies to M-Money</td>
<td>Retail Outlets/POS units</td>
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<td>Urban/Rural split</td>
<td>Device Availability (Smartphones and Featurephones)</td>
<td>International remittances</td>
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<td>Mobile Phone Usage Stats</td>
<td>Access to customer financial data</td>
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<td>Prepaid/Postpaid ratio</td>
<td>Usage metrics of Cash/Cards (Debit + Credit)</td>
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<td>Affordability to Consumers</td>
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<td>Affordability to Consumers</td>
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**Figure 5, Key Success Criteria for Mobile Money Services**
1.7. Analysis of Key Success Criteria

From the full list of key success criteria as described in the above chapter a shorter list of criteria can be extracted for further analysis. The key success criteria shortlist includes:

- **Basic Telecom Network Coverage and Device Penetration** – to ensure that the population can access M-Money services on their mobile devices
- **Progressive Regulation** – to build, administer and monitor policies and guidelines around M-Money
- **Minimum Population Size** – to obtain critical mass for user adoption of M-Money Transfer services
- **Positive Growth / GDP per Capita** – to tap into increased economic activity as a result of growth

Carrying out an analysis of this smaller set of criteria against the different mobile money services and sub-types provides a high level framework to support the country by country analysis in the subsequent chapters of this study.

The criteria on which the building block ratings for each country were based are also summarised in the form of questions which can be found in the ‘Guide to Country Ratings Scorecard for Mobile Money’ section.
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<th>M-Money Service</th>
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<th>Device Penetration</th>
<th>Smartphone Penetration</th>
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<td>Smartphone</td>
<td>Info/Transactional</td>
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<td>Domestic</td>
<td>Develop last-mile connectivity</td>
<td>Spur economic activity in rural areas (e.g. Transfer from urban centres to villages)</td>
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<td>International</td>
<td>Develop settlement infrastructure + last mile connectivity</td>
<td>Create remittance capability and allow Cash-in into M-Wallet</td>
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<td>Develop last-mile connectivity</td>
<td>Spur economic activity by allowing customers to use incoming remittance funds for domestic M-Money services</td>
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<td>High (At least 2G)</td>
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<td>Medium/Medium/High</td>
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<td>Proximity</td>
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<td>Low (NFC-enabled)</td>
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Figure 6, Analysis of Subset of Key Success Criteria
2. COUNTRY RATINGS AND RECOMMENDATIONS

2.1. COUNTRY SHORT-LIST

![Diagram showing country ratings and recommendations]

Figure 7, Mobile Money Opportunity Attractiveness - Country shortlist
2.2. **GUIDE TO COUNTRY RATINGS SCORECARD FOR MOBILE MONEY**

**Mobile capabilities**
- Sufficient mobile network coverage in the country – 2G, 3G?
- Sufficient device penetration – incl. smartphones?
- Sufficient investment for mobile infrastructure development?
- Progressive regulation in place for telecom?
- Ease of policy making in mobility realm?

**Financial Services**
- Unbanked population? Availability of means for conducting financial services?
- Maturity of financial services being offered?
- Extensiveness of banking channels + distribution network – branches, ATMs, etc.?
- Magnitude/impact of remittances?
- Regulation + e-Money licensing policy?

**Customer Considerations**
- Consumers ready for m-money services?
- Consumers adopted ICT services in the past internet banking etc.?
- Progressive social development – financial literacy, urbanization, GDP per capita?
- Sufficient trust in the banking system and mobile companies? KYC regulation?
- Sufficient consumer protection regulation?

**Mobile-Money Enablers**
- Presence of M-money platform and service providers?
- Entrepreneurial environment? Skilled labour availability?
- Availability of payment terminals, ATMs etc. and growth rate?
- M-Money consortium presence?
- Compliance/enforcement measures for transparency/security in FS?

**Political and Economic**
- Stable political environment?
- Sufficient economic growth?
- Prevalence of shadow economy?
- Progressive liberalisation, free-market access
- Ease of doing business?

**Financial Inclusion Opportunity**
Proportion of unbanked adults to all adults in country

**Countries in scope for the M-Money study**

**Go/Maybe/No-Go**
Country considered for deep-dive phase

**Mobile Banking**
Level of opportunities for development – including informational and transactional services using mobile

**Mobile Money Transfer**
Level of opportunities for development - including domestic and international transfers using mobile

**Mobile Payments**
Level of opportunities for development – including remote and proximity payments using mobile

**Supporting Volumes for Commercial Activities**
Unbanked adults > 5 million

---

**Figure 8, Guide to Ratings Scorecard**
## 2.3. Country Scorecard - Mobile Money Attractiveness

![Building Blocks and M-Money Services](image)

### Building Blocks Key:
- Low enabling
- Reasonably enabling
- Highly enabling

### M-Money Pillar Key:
- Minimal opportunity
- Medium opportunity
- High opportunity

### Financial Inclusion Opportunity Key:
- Highest proportion of Unbanked adults
- Lowest proportion of unbanked adults

---

**Figure 9, Ratings for 29 countries based on BearingPoint analysis**

<table>
<thead>
<tr>
<th>#</th>
<th>EBRD Country</th>
<th>Customer Considerations</th>
<th>Mobile Capabilities</th>
<th>Financial Services</th>
<th>Mobile Money Enablers</th>
<th>Political and Economic Environment</th>
<th>Financial Inclusion Opportunity</th>
<th>Supporting Volumes for Commercial Activities</th>
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**Notes:**

- Building Block Key:
- M-Money Pillar Key:
- Financial Inclusion Opportunity Key:

- Low enabling
- Reasonably enabling
- Highly enabling

EBRD Mobile-Money Country Report  January 2013
### 2.4. Sample Country Evaluations – Based on Criteria

#### Evaluating Criteria for Albania

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#### Evaluating Criteria for Turkey

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**Figure 10, Sample Country Evaluations**
2.5. ADDITIONAL NOTES

- As part of the ‘Desktop Study’ phase, all 29 countries in scope were analysed based on the defined success criteria, the mobile money building blocks and the impact that EBRD wants to create with their investment.

- Please refer to the individual country profiles for greater detail on the factors that make these countries attractive along with initial recommendations on which type of mobile money services could be pursued.

- The country ratings are based exclusively on BearingPoint Analysis. The ratings for each country represent the level of fertility on a relative basis (in comparison with the similar criteria for the other 28 countries).

- The final decision to shortlist 7 countries (Romania, Georgia, Ukraine, Turkey, Russian Federation, Kazakhstan and Kyrgyz Republic) was taken by EBRD based on BearingPoint’s recommendations.

- The specific opportunities in each of the short-listed countries, proposed business models and possible investment opportunities were explored in the ‘Field-Research’ phase of the Mobile Money study. These are presented as the In-Country findings in the 7 shortlisted countries. While every effort has been made to ensure validity of findings, they are primarily based on the views of key players within that market.

- The project team has collated relevant information on 7 countries (in sub-sections 1 to 5) from multiple, publicly-available data sources on the world wide web, exclusive reports and regional data sources. We undertook this analysis to create a reasonable estimate of mobile money attractiveness in the 29 countries as part of Phase 1. This effort, even with its limitations, provided a quantitative starting point for future studies on exploring opportunities for the development of mobile money services in these countries. Moreover, while every effort has been made to present the most accurate information, the project team has not been able to validate the accuracy of every data-point stated in this report.

- While the project team has made every effort to present the most current statistics for the 7 countries, they may not represent the most recent figures.
3. COUNTRY PROFILE: ROMANIA

3.1. COUNTRY SNAPSHOT

Year 2011 in Romania can be characterised as the year of economic turmoil. The financial system was hit hard which made the fragile Romanian economy reach the breaking point. The inflation rate reached 10%.

By 2012 the crisis was still not over, but entered a more difficult phase affecting the economic fundamentals.

The banking system of Romania is represented by 42 banks (out of which 10 branches are foreign banks) registered in Romania compete for a highly fragmented market with still modest financial penetration. Over 75% of the Romanian banking system has foreign ownership (30% is Greek, 21% is Austrian, 15% is Dutch), 12% has Romanian private capital and 11% are state-owned banks. The Top 5 banks in Romania in 2011 accounted for 54%. Top 10 banks accounted for slightly over 72% of the banking assets. The concentration rate of top 5 players is estimated at around 48%.

The leading banks by market share are: Banca Comerciala Romana (Austria) – 20.1%, BRD Societe Generale (France) – 13.6%, Volksbank Romania (Austria) – 5%, Alpha Bank Romani (Greece) – 4.7%, UniCredit bank (Italy) – 6.3%, Raiffeisen Bank (Austria) – 6.7%, Banka Transilvania (Romania) – 7.3%, Bancpost (Greece), CEC Bank (Romania) – 7.0%, ING Bank (Netherlands).

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2 From ‘Half the World is Unbanked’ published in Oct 2009 by Financial Access Initiative. Honohan presents estimates, of the fraction of the adult population (aged 15+) using formal financial and semi-formal (i.e., from unregulated microfinance institutions) services by combining data from banks and microfinance institutions with household surveys.
3.2. **COUNTRY OVERVIEW – IN TERMS OF BUILDING BLOCKS**

<table>
<thead>
<tr>
<th>Customer Considerations</th>
<th>Mobile Capabilities</th>
<th>Financial Services</th>
<th>Mobile Money Enablers</th>
<th>Political and Economic Environment</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

**Customer Considerations**

In Romania people are considered to be well-educated, certain segments adopt new technologies relatively quickly and are very open to western trends. While people have trust in the banking system, they do not conduct banking operations actively and do not perform complicated financial transactions.

Overall social development of the population remains relatively poor: level of urbanisation is relatively low (55%), 21% of population is below the poverty line, GDP per capita is relatively low ($8,405).

**Mobile Capabilities**

The Romanian telecommunication market is relatively developed: mobile phone penetration has reached 110%; 11.5% of mobile phone owners have a smartphone. 3G coverage is 58% of population, 35% of the territory.

In 2011, there were six active MNOs, of which the top two operators had a combined market share of 71%, albeit under constant decrease. Five MNOs were also offering fixed telephone services; two had both UMTS and GSM services, while one operator was only in possession of a UMTS licence. The telecommunications market is highly concentrated, 3 main players account for 99% of the market: Orange (45% market share), Vodafone (33%), Cosmote (21%).

In Romania there are two MVNO initiatives underway, Click and MyAvon, but they are yet to be launched.

The Romanian legislation did not yet transpose the new provisions of the EU regulatory Framework on rights of way and facility sharing. The proposed legislation on electronic communication infrastructure, scheduled to be adopted in the second half of 2012, will address these issues. Market actors and stakeholders complained that in the absence of clear legal requirements and deadlines, deployment of network infrastructure is unduly hindered by the permitting process and the arbitrary decisions of some local authorities.
Financial Services and Mobile Money Enablers

The main short and medium term trends in the Romanian banking market include increased financing pressures, reduced credit activity, increased focus on EU funds co-financing, cost control/ branch network optimisation, change of the competitive landscape, increased competition for “good” customers etc.

In Romania there is relatively high level of unbanked population (77%), banks still focus developing alternative channels (i.e. mobile, internet banking). Domestic investments in banking infrastructure are low; however the support from the EU banks and investment funds to recover from the crisis is intense.

Mobile payments are relatively developed in Romania. In 2010 Orange launched, in partnership with Metrorex, the first mobile payment service for public transportation in Romania (SMS-based ordering, access based on optical reading of the MMS barcode received on the mobile). 5 banks implemented contactless payment services and launched trial programs for NFC/mobile wallet (m-ticketing) services.

The microfinance market in Romania is estimated to be worth over €0.5 billion. Commercial banks meet 55% of demand, non-bank micro finance institutions (NBMFIs) only 15% and 30% remains uncovered. In general, for the proportion of the micro, small and medium-sized enterprises (MSMEs) per inhabitant, Romania is estimated to have about 13.6 active MSMEs per 1,000 inhabitants, which is less than half of that of neighbouring Bulgaria (27.6 MSMEs per 1,000 inhabitants) and even less than when compared to Czech Republic, Hungary Slovakia and Slovenia (42.7 MSMEs per 1,000 inhabitants).

Political and Economic Environment

Political and economic environment in Romania is relatively stable, but not very developed: level of political stability is not very high (0.26), level of political liberalisation is not very high as well (64.4). Percentage of shadow economy is relatively low (30%).

The resurgence of inflation put dramatic pressure on population economy and had made any recovery unthinkable for the next 2-4 years. The collapse in the economic system, the internal and external investments was reduced to minimum, the credit on internal market was practically suspended and all this provoked for 2012 an economic decrease of more than 15% of GDP.
3.3. Payments Overview

POS payments are rising sharply, card numbers continue to fall.

- By end 2009, currency in circulation stood at ROL25,617 million, down 5% from 2008.
- By December 2009, there were 12.8 million payment cards issued in Romania, and by 2010 this figure had fallen to 12.5 million, down 2%.
- Credit card numbers dropped 17% in 2009, trend continued in 2010, dropping a further 2%. In 2011 number of issued cards is 36.4 million (population 21.8 million), but number of active cards is 10.7 million (only 30% of all issued cards).
- The nominal value of the total deposits continued its increase up to ~40.5 billion EUR in Dec. 2011. The population’s increased tendency towards savings was visible in 2011 as well. The higher appetite towards savings is also due to a more prudent liquidity management of the population.
- Total banking loans continued their declining trend in 2011 as well (due to banks’ risk aversion, increased non-performing loans, profitability issues). On the other side, the contraction of the population’s disposable income and an increased trend towards savings had an influence as well. Concerning the loans structure per destination, corporate loans continued their increase in 2011 as well, reaching a level of 26.7 billion EUR in 2011, while household loans were fairly stable in 2011 in nominal values.
- There were a total of 10,100 ATMs in Romania in 2010; the number has stayed flat for 3 years.
- POS numbers grew 3% to 106,500 in 2010, compared to 2009.
- ATM withdrawals declined slightly in 2010, POS payments rose sharply, up 18% to 91 million payments.

3.4. Opportunity Summary for Romania

A sizeable unbanked population along with significant FDI growing construction industry and Telco provide enough momentum for the growth of Mobile Money

EBRD Mobile-Money Country Report January 2013
services in Romania. However, the country still faces sluggish growth prospects in all sectors marred with lack of transparency within government.

- Mobile Money Transfer - As more and more Romanians are returning to Romania due to the economic crisis in Western EU, they could take up mobile money transfer services. Remittances in 2011 accounted for 4.38% of GDP. High level of mobile phone penetration (115%) could act as an enabler.

- Mobile Payment – Wide base of target users who can adopt these services, high 3G coverage, cashless payments gaining popularity are all positive drivers presenting opportunity in the Mobile Payments realm. Moreover, there is additional opportunity given the preponderance of cash based transactions even among SME’s.

- Mobile Banking – While cash-based culture is dominant among SMEs, the younger cohort of 20 to 35 year olds represents the largest and most economically active demographic that could be targeted.
### 3.5. **Secondary Indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
<th>Group Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic payments used to make payments (% age 15+)</td>
<td>10.52</td>
<td>13.69</td>
</tr>
<tr>
<td>Mobile phone used to pay bills (% age 15+)</td>
<td>0.92</td>
<td>3.73</td>
</tr>
<tr>
<td>Mobile phone used to receive money (% age 15+)</td>
<td>0.46</td>
<td>3.12</td>
</tr>
<tr>
<td>Mobile phone used to send money (% age 15+)</td>
<td>0.53</td>
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</tr>
<tr>
<td>Point-of-sale terminals (per 100,000 adults)</td>
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<td>610.87</td>
</tr>
<tr>
<td>Saved any money in the past year (% age 15+)</td>
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<td>23.56</td>
</tr>
<tr>
<td>Account at a formal financial institution (% age 15+)</td>
<td>44.59</td>
<td>45.93</td>
</tr>
<tr>
<td>Saved at a financial institution in the past year (% age 15+)</td>
<td>8.69</td>
<td>9.00</td>
</tr>
<tr>
<td>Branches, commercial banks (per 100,000 adults)</td>
<td>33.15</td>
<td>22.29</td>
</tr>
<tr>
<td>Credit card (% age 15+)</td>
<td>11.66</td>
<td>11.92</td>
</tr>
<tr>
<td>Debit card (% age 15+)</td>
<td>27.71</td>
<td>35.04</td>
</tr>
<tr>
<td>Strength of legal rights index (0=weak to 10=strong)</td>
<td>9</td>
<td>6.21</td>
</tr>
</tbody>
</table>

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IN-COUNTRY FINDINGS – PHASE 2

3.6. Key Market Insights for Romania

Relatively easy access to financial services but not maximised due to mistrust

- Access to Financial services is high in urban areas and relatively high in rural areas. However significant mistrust of financial institutions drives the unbanked population (estimated at 40% based on industry perception) even within the under 30 year old demographic
- In urban areas, almost 90% of population aged between 18-65 has access to financial services (although as mentioned previously even the younger cohort does not take advantage of financial services due to mistrust)
- Approximately 60% of the urban population receives its salaries through current accounts. However within rural areas Pensions are received in cash via the local post offices
- Not dangerous to carry cash although it should be emphasised that lending of money amongst SMEs and friends & family are relatively low amounts and on occasion for larger transactions local law enforcement offers supplemental security services
- Distances in Romania are fairly high and transportation infrastructure is underdeveloped in rural areas. As such more kiosk POS terminal points would be welcome and fully utilised with further payment and remittance capabilities within the service model

POS Terminals are increasing in popularity to fulfil individual payment needs

POS Terminals are gaining tremendous popularity as they fulfil the necessary daily service and payment requirements. Most of these terminals are small to medium sized self-service machines which are located in shops and markets, and kiosks on busy streets and rural areas, and often in the localities where there are no bank branches. Interest by government agencies responsible for the collections of fees and the post office provides further market penetration for POS terminals.

Micro Finance is becoming another financial service which has potential for being distributed through mobile banking

Micro finance is popular within the rural regions of Romania particularly for servicing agricultural clients. Institutions like Patria Credit and Good.Bee have been providing small ticket sized micro and agricultural loans to SMEs and farmers. These micro finance loans are being paid by distributed barcoded cards and can be
used to make loan payments and purchase goods at POS terminals found at retailers and Kiosks. Improving the efficiency of sales channels by diversifying into mobile banking offers payments providers lucrative opportunities by partnering with Telcos and banks to drive more customer numbers, credit and deposit volume and transactional fee income.

3.7. **MOBILE MONEY ECOSYSTEM**

- **Money transfer market**

  - As for the remittance market in Romania, it is in the worldwide top ten and in the top at European level concerning the money sent by Romanians working abroad according to a United Nations Development Programme (UNDP) report of human development.

![Figure 11: Evolution of incoming remittances](source: www.businessday.ro [8])

  - In 2010, the post-crisis effects has continued to put a down-ward pressure onto the current account of foreign currency inflows, Romania received 3.4 billion Euros from the Romanian labourers working abroad (compared to the 3.5 billion Euros in 2009 or in 2008 of 5.1 billion Euros). The main countries from which they sent money were still Italy (36 % of the amount) and Spain (34 %), plus and the United Kingdom (14%)
• Payments market
  o Some banks are offering cardless money transfer via SMS. Non-bank customers can enter a code received on their mobile via SMS into an ATM machine to withdraw cash.
  o Over the past nine years, Paysafecard has established itself as Europe’s favourite safe and easy-to-use alternative prepaid payment method for e-commerce. It is available in more than 20 countries worldwide. Thousands of e-businesses are benefiting from new customers by offering this safe and uncomplicated payment solution. Paysafecard is available in €10, €25, €50 and €100 e-vouchers at more than 230,000 outlets across Europe and South America. In March 2009 the group was awarded ‘Best Prepaid Company outside the USA’ by the global prepaid industry publication Paybefore.

• Key Occasions of Payment
  o Based on sources from Banca Transilvania, about 80% of their customers pay their utility bills via direct debit. The remaining customers use other means such as cash payments at centres. As for the unbanked, majority of them used their local post office to make utility payments while the others either paid cash at collection centres or paid cash to collection agents.
  o POS terminals using pre-paid cash cards sold by such payment POS distributors as Payup and cash are the primary modes of payment in Romania. ‘Payup’ owns a distribution network of POS terminals throughout Romania and in conjunction another payments provider ‘Paysafecard’ they offer pre-paid cards with which end-user customers can use Payup’s terminals found in local large retailers and kiosks to purchase goods and top-up pre-paid mobile phone air-time. Growing in popularity but still underdeveloped is the use of SMS for P2P transactions but mostly this form of payment transfer is between 2 bank account holders.
  o For those Romanians which lack a bank account the most popular mode for receiving funds such as social assistance is through the regional representative offices of various government agencies (national, provincial and municipal) such as the local Post Office for receiving pension and social assistance supplements in the form of cash. Some Micro Finance providers use contracted mobile bankers to receive loan payments from their SME borrowing clients via a bar-code and a mobile POS terminal. Patria Credit is envisioning using the same mobile POS terminal to load up the aforementioned pre-paid card for disbursing SME loans (currently these loans are only disbursed if the SME client has a bank account within Romania).
  o Cash continues to be the primary mode of payment in Romania.
In November 2011, Carrefour Romania launched the first pre-paid card issued by a hypermarket network in the local market. This new financial product is a debit card issued in conjunction with MasterCard and Rev Europe and is available in all Carrefour hypermarkets in the country. Carrefour MasterCard Prepaid Card is an electronic wallet that allows electronic payments to be made, including over the internet. These Carrefour Cards can be used now for making utility payments like heating Gas and Electricity in addition to purchasing items at their retail stores.

**Mobile Wallet**

- Various state owned utility companies such as CONEL (Romanian Power Corporation and TRANZGAS in their quest to become privatised through a future offering of its shares to be traded in the Bucharest stock market have been pursuing alternative payment channels for their residential consumers through the use POS terminals either in their regional representative offices and/or retailers.
- POS terminal distributors such as Payup are currently interested in introducing a mobile wallet for the Romanian market which allows consumers to pay for utility bills.
- Orange Romania and BRD, part of France-based banking group Société Générale, have launched an NFC payments pilot in June 2012. Approximately one hundred BRD customers have been provided with a BlackBerry NFC smartphone equipped with an Orange NFC SIM for the trial. Participants are able to use their phones to make payments at any of the more than 2,000 contactless POS terminals installed by BRD in Romania, as well as at other retailers in the country or abroad that accept MasterCard PayPass contactless payments.

**Mobile Banking**

- Alternative sales and payment channels such as internet online banking and mobile phone banking began in earnest from 2005-2006 and 2008-2009 respectively.
- Banks offering Mobile Banking services have utilised WAP and native apps for various mobile platforms such as iOS, Android etc.
- Expansion of capabilities through the development of locally developed apps in transferring the full internet banking functionalities onto a mobile device (tablets are only 10% of the mobile banking market in Romania currently and expected to become 20% in 2013-2014) has been the driving strategy to convert online banking users onto the mobile phone and tablet platform.
- The main obstacle to motivating customers away from the brick-and-mortar sales channels and directing them to ‘virtual banking’ is lack of education.
• **Unbanked**

  o According to all sources spoken to, the unbanked population’s reluctance to use financial services has been consumers’ distrust and lack of education in financial products. The unbanked population is estimated to be at 40%.

  o Given the less than generous social assistance benefits and a tax system that is designed to promote SME development many micro finance organizations such as Patria Credit and Good.Bee have been driving the micro finance market. In 2012 the latter expanded into mobile payments via a partnership with South Africa's Wizzit Group and Erste Bank's own commercial banking subsidiary in Romania, Banca Comerciala Romania. Good.Bee now serves 4,000 clients in the country, with a loan portfolio in excess of US$12m. Approximately 15% of its clients originate from the country's Roma community, a group almost totally excluded from the financial services industry. This often marginalised group will become cheaper and easier to service as the organisation grows and develops a foothold in Roma communities.

  o Although it is not a purely commercial venture, Erste Bank's significant foray into Romanian micro finance shows that private-sector banks can find opportunities play in small-scale financial services in Eastern Europe.

• **Regulation**

  o Regulation has been put in place to facilitate usage of various payment instruments. Extensive Consumer Protection laws and Anti-Trust Monopoly legislation is in place to allow new entrants into the payments markets.

  o Consumer Data protection has been strengthened giving end-user customers the right not to share their transactional behaviour. However, this has not been a barrier to collecting transactional data. It’s rather consumers preference of cash that prevents collecting transactional data. Nonetheless, those using payment services have mostly not opted to not disclose their transactional behaviour to mobile payment operators thus providing the latter with extra revenue streams in selling customer data to financial institutions.

  o Overall regulation in the telecom realm seems to be progressive. ANCOM, the Telecom Regulator, has confirmed that as of September 2012 demand from operators for frequencies currently being auctioned will not exceed supply. This is a positive sign indicating that the regulator is willing to do what it takes to meet market demands. Moreover, it has a well-developed consumer protection programme and anti-monopoly regulatory controls that are conducive to allowing new mobile payment entrants into the market.
In 2011 the Directive 2009/110/EC on the taking up, pursuit and prudential supervision of the business of electronic money institutions was transposed into the national legislation through the Law №127/2011 on the activity of issuing electronic money. According to the law, the National Bank of Romania has maintained its competencies relating to the licensing and supervision of the electronic money institutions (formerly considered credit institutions), as well as the AML/CTF supervision competences – Regulation №7/2011 which amends Regulation №9/2008 on know-your-customer for the purpose of money laundering and terrorism financing prevention.

3.8. **NOTEWORTHY PRODUCTS:**

- **Bank of Transylvania** – Mobile Banking App for smartphones and mobile devices launched in June 2010.
  - This app allows customers to:
    - Receive real time information regarding transactional and balance info on deposits, credit cards and loans
    - Set up previously approved bill payments for utilities and credit obligations
    - Branch and ATM locator with opening hours and services offered
    - Change username and password
    - Apply for credit limit increases (in the future) opportunity for applying for a new loan and credit card online
    - Receive currency exchange rates and calculate converted values

- **Patria Credit** – Established in 2007 through private equity, BAF’s (Banker’s Acceptance Facilities) and IFI’s, EBRD and other NGO donor lines. It provides micro financing for SMEs in rural and urban Romania where small farmers are a significant customer base.
Customers must have a bank account from which to receive the micro loans and the loan credit worthiness process is conducted by mobile bankers which reside locally in their respective market region. These mobile bankers report to 27 local outlets which in turn report to the 15 regional centres (total of 42 branches) from which the credit decision is made and from which the funds are disbursed.

Once the customers receive their loans into their bank accounts from another Romanian bank they are issued with a barcoded card (Paysafecard product) from which they can make payments in person with the mobile banker on a monthly basis. They can also use one of 5,000 POS terminals throughout the country to make their payments.

In order to diversify its funding base Patria Credit is currently pursuing regulatory approval in order to gather deposits and is also considering home insurance as an additional product. In order to mitigate the impact of risk costs due to default Patria Credit has partnered with various SME development initiatives within the Romanian and European economic development programs. For example, currently one of its most popular products is the European Progress Micro Facility which is secured by the EU.

For the future Patria Credit is very much interested in replacing the barcode repayment card with a mobile device app that would have the following capabilities:

- Make credit applications
- Receive funds (the micro loan) in a mobile wallet
- Make payments from the mobile wallet remotely or P2P to the mobile banker
- Check for remaining loan balances
- Use the mobile wallet to conduct C2C and C2B transactions to send money and purchase goods and services through SMS, NFC and/or at POS terminals

Ideally a mobile payments distributor with the hardware and payment infrastructure already established in the Romanian market would be a recommended partner to realise the aforementioned loan distribution business plan.

### 3.9. EXISTING BARRIERS

Payment POS terminal infrastructure is growing within the rural areas primarily. However the payment market is underdeveloped not due to regulation (in fact Romania’s communications regulator is business friendly and has extended its bandwidth and moved from 3G to 4G within Bucharest particularly in order to attract new payment distributors) but rather to the fact that the population is not tech-savvy, thus companies might have to spend much of its sales development budget on educating POS terminal operators and end-
users of loadable cards and mobile phones with NFC capabilities on proper usage.

- People have reasonably good access to financial services but chose not to exploit the common financial institutional products opting primarily for cash only transactions.
- Internet usage has grown considerably thus providing people with the means to conduct financial services online which will satisfy the electronic banking needs of a target population that might have otherwise opted for mobile banking if it existed.

3.10. GAPS AND OPPORTUNITIES

- There is an existing gap in the market for a universal P2P, B2B money transfer solution. The business model would include: i) Distributors of the POS hardware (which is sold to retailers and government service providers) and the transaction processing platforms ii) The local Telcos such as T-Mobile and Orange providing the telecommunications hardware infrastructure. iii) Ideally financial institutions could provide their resources for conducting back office transactions to lower the operational costs of the payment providers.

3.11. THREATS

- Banks and Telcos are siloed. There are no current joint ventures and partnerships in place which could limit interoperability of future m-money services.
- Low consumer adoption could further weaken the commercial case for revenue generation for mobile money services.
- Consumers have numerous payment options in the marketplace and prefer personal one on one cash transactions at branches, utility offices etc.

3.12. HOW CAN EBRD HELP DEVELOP THE ROMANIAN MOBILE-MONEY MARKET?

- Refer to the Opportunity Sheets
“ROMANIA”

Mobile Money Opportunity #1: Invest in PAYUP

COMPANY SNAPSHOT

- PayUp is an international venture focused on the distribution of cost-effective and convenient electronic payments services, for national and regional bill-issuing companies (such as utilities, banks and financial institutions, telephony providers and other major service companies).
- PayUp Romania was created on March, 2008, and has a share capital of 14246420 RON. Launching the service in Romania was primarily possible due to the contribution of the PayUp Holding team leader – Luís Janeiro.
- The shareholders that are supporting the development of PayUp are BPN Bank, EFISA Bank and Venture Capital funds from Portugal. PayUp Desenvolvimento Negocios is based in Lisbon, in Portugal.
- Total funding needs include technology, marketing and support network management and growth: 30 Million EUR (includes start-up costs)
- From similar ventures within Romania it is expected to raise revenues of about 25 Million EUR yearly and EBITDA of about 25% to 30%

OPPORTUNITY ANALYSIS SUMMARY

- Speed up Payup’s go-to-market with its universal payment platform for mobiles
- Help connect the Payup processing platform to acquiring systems of banks with large rural branch networks allowing more customers to use the services and lower back office transaction processing charges
- Currently more than 300,000 end-user clients use Payup’s network via 2,900 self-serving POS payment terminals across the country 24/7 at various kiosks and larger retailers throughout Romania
- Current portfolio contains:
  - Prepaid airtime (mobile national and international calling cards, prepaid TV)
  - Bill Payments such as public utilities
  - Card Acceptance and Cash-Back
  - eCurrency (offered in conjunction with Payup’s partnership with ‘Paysafecard’)
- Of particular interest for Payup is the ability to load Paysafecards and mobile phones with salaries and social service payments (e.g. Pensions)

EBRD SUPPORT REQUIREMENTS

- Investment/loan for a quicker go-to-market
- Facilitating the participation of additional banks for back office infrastructure
- At this point they would need more venture capital and a partnership with a local financial institution with a vast branch network and developed transactional back office functions to deal with the expected increase in volumes.

KEY REGULATORY CHANGES NEEDED

- There are no significant regulatory changes at this time that would provide an obstacle to Payup’s business strategy. In fact ANCOM, the local regulator, has a well-developed consumer protection and anti-monopoly regulatory controls that are conducive to allowing new mobile payment entrants into the market. As Payup has a first mover advantage it is well positioned to grow. However, it must grow quickly in order to fend
- Expected coverage for Romania to sustain a highly accessible network of localisations focused on rural areas to support unbanked population: Currently Romania is still underdeveloped in terms of mobile payments country coverage
- Total funding needs include technology, marketing and support network management and growth: 30 Million EUR (includes start-up costs)

### CURRENT POSITIONING IN MARKET

- PayUp is one of the leading payment terminal providers of POS within the rural areas of Romania.
- The unbanked population is primarily motivated by lack of trust for financial institutions and a dominant cash culture. There are significant opportunities for growth in the POS market due to few POS players and low penetration rates for POS terminals particularly in larger rural areas. The challenge is to convince the population that electronic means of transferring funds are convenient and not invasive.
- Consumers: Prefer to pay money (rather than ATM, home-banking or automatic account credit) These are usually low budget families, unbanked, price sensitive people to banking services, and are not bank card holders. They welcome the convenience of the service and prefer to deal with retailers and kiosks that are close to their residence and place of employment, have extended opening hours and have personal confidence in the retailer and kiosk operator.

### EXISTING INITIATIVES

- ANCOM, the Romanian Telco regulator, has increased the number of licenses available to 2nd party Telco operators such as PayUp paving the way for more POS terminal entrants and m-money opportunities in the market.
- Identifying those key occasions of payment and receiving funds which are dominated by a preference for using cash first and offering an electronic alternative solution that utilises existing telco technologies and infrastructure from local and foreign providers is challenged by end-user consumers who either lack the technical knowledge to properly operate online and mobile solutions or simply distrust cashless solutions.

### CURRENT PAIN-POINTS

- Non-existence of a universal payment system which could allow existing internet banking/payment customers to migrate to doing the same via mobile sales channels requires more simplified alternatives to cash, preferably in the form of loadable barcoded or chip cards. However this would require higher penetration of POS terminals to allow end consumers to make payments and receive funds via the card system.
- C2C NFC Mobile solutions is in its infancy however there are some joint initiatives such as Orange Romania and BRD bank which hope to grow this payment channel particularly in regions where their branch penetration rate is lowest.
## M-MONEY VALUE PROPOSITION

- Payup has now been operating in Romania for 2 years (2,900 active POS terminals) and has been successful in Poland for 4 years (4,700 active POS terminal)
- Payup’s service is to offer low cost/no frills financial services for the unbanked urban and rural population of Romania. Originally this serve was offered in Portugal and then it migrated to Poland (currently this market is reaching saturation point thus have already provided diminishing marginal returns) and has now moved over to Romania which is still underdeveloped and offers significant growth opportunities.
- An aggressive marketing and retail management approach is used to push for end user customer loyalty and from the distributors (Kiosk retailers).
- With Payup, customers can:
  - Make payments to different service providers at designated POS terminals from various Kiosks and retailers
  - Make payments by using NFC technology via prepaid loadable cards and mobile phones
  - Transfer money C2C. In the future B2B within the SME sector will be a large potential as well.

- **Processing Platform** from Payup technology (processing platform) is based on the following principles:
  - Flexibility: to easily accommodate new services (modules) and partner connections using several options
  - Scalability: To increase balance limits, disbursement limits and payment limits onto cards
  - High information flow: Possibly to develop any kind of reports for Business management and control

## GO-TO-MARKET

Phase 1 (launched in 2011)

**Target Segments:**

1. First phase would be the under 30 demographic and university students, more focus on rural areas for C2C. Cheaper target and widespread and less training needed on adopting new technologies. Identifying industries and markets where students and young professionals use their disposable income such as University bookstores and even paying for their tuition could be viably lucrative new markets for POS terminals.
2. At a later stage in the first phase SME’s could be targeted by extending existing kiosks POS functionalities of the mobile payment system that will drive other segments of the population to engage in more transactions
3. Second phase would envision a possibility to partner with government agencies responsible for disbursing social assistance funds to use this option to send pensions to the elderly or any other social benefits onto the Paysafecard at the POS terminals at Paysafe retailer and kiosk customers or mobile m-wallet.

The business model develops this way:

- **Consumers** go to convenient (longer opening hours/better locations) retail points and ask for prepaid card from a Mobile Operator or ask for a bill payment presenting the invoice.
- **Retailers**: Retailers have a processing terminal for entering the orders of a prepaid ‘Pinvoucher’ (payment card), ask for a bill payment or accept a debit/credit card payment. Retailers composed of store networks can ask for an integrated order request in their POS system.
- **Payup**: Owns a processing platform that hands and manages transaction requests from retailers.
- **Partners (Mobile operators/Bill**
- Lower transaction processing costs
- It is a proven technology that is now present in two countries (Poland & Romania) and has been used for 4 years
- Online support 24/7

Issuers/Others: Payup is connected to its partners either by offline secure connections or online secure connections.

**KEY BENEFITS/IMPACT**

- Romania’s cash driven economy could be exploited via mobile technology with a market of approximately 10 million customers. The ability for rural Romanians and unbanked urban Romanians to receive salaries at kiosks (social payments like pensions are currently being targeted) would be a good opportunity as payment operators have moved into this potential market.

**POSSIBLE CHALLENGES AND RISK**

- The cost of the POS terminal should be optimised to attract more Retailers and Kiosk owners.
- Also improving the ease of operating the terminal is being considered as many kiosk owners in particular are prone to making errors in maintaining and operating the devices.

**KEY DEPENDENCIES**

- Critical success factors are:
  - High mobile phone penetration
  - High rate of unbanked population
  - High level of informal money lending (between SMEs, suppliers, and family members)
  - High level of emergency cash
  - High percentage of early adopters (technology lovers)
  - Increasing e-commerce transactions
  - Revenue streams are transaction based
  - Capitalisation of client base to third party services (shared fees with banks or local services that can use Payup client base to promote their own products)

**SUGGESTED NEXT STEPS FOR EBRD**

- A meeting with the managing board of Payup would be advisable.
- Prior to that a list of potential partners (financial institutions in Romania with significant rural branch networks) which could provide transaction back office support would be much appreciated by Payup; CEC Bank and Banca Transylvania would be good candidates.
- Additionally any contacts form local authorities responsible for disbursing social payments like pensions would be desired.

**CONTACT DETAILS**

PayUp  
Soseaua Bucuresti-Ploiesti, nr. 15-17, Etaj 6, Sector 1  
Bucharest, Romania  
Phone: +40 317 111 860  
Fax: +40 317 111 869  
www.payup.net/ro
"ROMANIA"

Mobile Money Opportunity #2: Invest in PATRIA CREDIT

COMPANY SNAPSHOT

- Patria Credit is the #1 non-banking microfinance institution in Romania
- It was set-up in 1996, initially as an NGO, with a mission to provide loans to the unbanked.
- Its shareholders are as follows:
  - RAEF (Romanian American Enterprise Fund) - established in 1995 and was capitalized with $ 55 M by the U.S. Congress;
  - BAF (Balkan Accession Fund) - a €110 M private equity fund for Romania and Bulgaria; the lead investors are RAEB, EBRD, DEG (member of the KfW group), FMO, BSTDB (Black Sea Trade and Development Bank)
- Patria Credit wants to offer basic financial services in Rural areas of Romania (Micro-savings/deposits, Transactions and payments, Micro-loans, Micro-insurance) with the help of mobile-money and create an acceptance network in the rural area for the mobile payments (at local merchants)
- Patria has a core-banking system implemented (although we are a non-bank) which can be easily integrated with a Mobile-money solution (as the mobile money solutions are usually developed for banks)

OPPORTUNITY ANALYSIS SUMMARY

- Currently ‘Patria Credit’ is interested in a mobile device for its mobile agents in the rural areas of Romania that would replace the loadable card which customers use to make payments on their SME loans.
- It is also interested in applying for a banking licenses to sell i) Micro savings (deposits) ii) Micro Insurance and further expand its current micro loans within the rural areas of Romania
- Patria Credit believes that there are still significant opportunities for disbursing micro finance loans by setting up POS terminals in retailers where borrowers can receive funds in an m-wallet format and make payments for the loans via the same POS terminals or send the payments remotely via SMS

EBRD SUPPORT REQUIREMENTS

- Investment/loan for a quicker go-to-market
- At this point they would need more venture capital and a partnership with a technology provider with a POS Terminal network and a mobile application for its mobile sales agents to receive payments and disburse micro loans

KEY REGULATORY CHANGES NEEDED

- In order to be able to sell deposits and insurance Patria Credit would require a banking license and an e-money issuer license.

CURRENT POSITIONING IN MARKET

- The leading non-banking micro finance institution in Romania established in 1996 initially as an NGO (Non-Governmental Organization) which specifically targets
unbanked SMEs and Agri-businesses.

- **Size and Outreach:**
  - EUR 59 Million in total Assets and EUR 17.8 million in Equity
  - EUR 31 million new loans sold in 2011 (6,500 new loans/year)
  - 42 branches (16 Urban, 26 Rural) plus 10 mobile agents
  - 12,000+ active customers; 22,115 total customer database of which 14,911 customers are in rural areas.

- **Patria’s rural lending activity:**
  - 63% of its active customers in rural areas and 38% of the portfolio value
  - 47% are Agro-Producers (small family farms)
  - Patria has been present in the rural areas for more than 10 years

- **Average loan size:**
  - 11,000 EUR for Micro Business (especially in urban areas)
  - 2,300 EUR for Agro-producers (small farms)

- **Patria’s Loan disbursement strategy relies on a network of mobile agents:**
  - 60% of Patria’s core business is generated through agents who have credit applications completed and receive payments on loans in person. The remaining 40% are disbursed at the branch network. All loans are credited into a bank account at a chartered Romanian bank.
  - Patria has 100% cashless operations and uses rural outlets (convenience stores and kiosks) to cash-in loan repayments since October 2010

<table>
<thead>
<tr>
<th>EXISTING INITIATIVES</th>
<th>CURRENT PAIN-POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifying those key occasions of payment and receiving funds which are dominated by a preference for using cash first and offering an electronic alternative solution that utilizes existing telco technologies and infrastructure from local and foreign providers is challenged by end-user consumers who either lack the technical knowledge to properly operate no-line and mobile solutions or simply distrust cash-less solutions in general</td>
<td>Non-existence of a universal payment system in urban/rural areas. Low trust in financial services combined with poor adoption in the rural areas.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>M-MONEY VALUE PROPOSITION</th>
<th>GO-TO-MARKET</th>
</tr>
</thead>
<tbody>
<tr>
<td>To create an ‘acceptance network in the rural area’ for the mobile payments at local merchants via a POS terminal or wireless through an SMS C2B transaction</td>
<td>Patria credit would require: The technology (Mobile Money system delivering micro Savings and micro loans directly to customer via a POS terminal at retailers) and the required e-money issuer license. The deployment and mobile agent integration with the new technology Marketing education for the mobile agents</td>
</tr>
</tbody>
</table>
### KEY BENEFITS/IMPACT

- Romania’s cash driven economy could be exploited via mobile technology with a market of approximately 10 million customers. The ability for rural Romanians and unbanked urban Romanians to receive SME loans through an M-Wallet application or through POS terminals at retailers would extend the reach of isolated rural customers to be able to increase Patria Credit’s micro finance portfolio.

### POSSIBLE CHALLENGES AND RISK

- The main challenge would be the relatively small scale of the target market which is roughly 6.2 Million within the rural areas aged 15-65 years of age.
- Training the mobile agents to utilize the mobile device by which to replace the existing payment cards can be costly.

### KEY DEPENDENCIES

Critical success factors are:

- Well-established existing networks of mobile agents for cash-in/cash-out transactions
- Romania is one of the top 10 nations which is a net receiver of international remittances (approximately 3.2 billion EUR in 2011)

### SUGGESTED NEXT STEPS FOR EBRD

- A meeting with the managing of board of Patria Credit would be advisable.
- Consider what other proven technologies exist in other markets that can disburse loans into M-wallets or pursue a POS terminal supplier with an established terminal network that uses NFC technology to load m-wallet on mobile phone or loadable cards.

### CONTACT DETAILS

**Patria Credit IFN S.A.**  
33 Aviatorilor Blvd., 2nd floor  
Sector 1, Bucharest  
Tel.: (+40) 021 304 00 73  
Fax.: (+40) 021 222 11 38  
Email: Bogdan_merfea@patriacredit.ro (CEO)  
WebPage: www.patriacredit.ro
3.13. **Key Organisations in the Ecosystem**

<table>
<thead>
<tr>
<th>Segments</th>
<th>Companies</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telcos</td>
<td>Orange</td>
<td>43%</td>
</tr>
<tr>
<td></td>
<td>Vodafone</td>
<td>46%</td>
</tr>
<tr>
<td></td>
<td>Cosmote</td>
<td>11%</td>
</tr>
<tr>
<td>Banks</td>
<td>Banca Comerciala Romana (Austria)</td>
<td>20.1%</td>
</tr>
<tr>
<td></td>
<td>BRD Societe Generale (France)</td>
<td>13.6%</td>
</tr>
<tr>
<td></td>
<td>Volksbank Romania (Austria)</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>Alpha Bank Romani (Greece)</td>
<td>4.7%</td>
</tr>
<tr>
<td></td>
<td>UniCredit bank (Italy)</td>
<td>6.3%</td>
</tr>
<tr>
<td></td>
<td>Raiffeisen Bank (Austria)</td>
<td>6.7%</td>
</tr>
<tr>
<td></td>
<td>Banka Transilvania (Romania)</td>
<td>7.3%</td>
</tr>
<tr>
<td></td>
<td>Bancpost (Greece)</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>CEC Bank (Romania)</td>
<td>7%</td>
</tr>
<tr>
<td>3rd Party Players</td>
<td>PayUp</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>MobilPay</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Mi-Pay</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Smith&amp;Smith</td>
<td>N/A</td>
</tr>
<tr>
<td>Regulators</td>
<td>BNR (National Bank of Romania)</td>
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</tr>
<tr>
<td></td>
<td>ANCOM (National Authority for Management and Regulation in Communications)</td>
<td>N/A</td>
</tr>
<tr>
<td>Consumer/Business Proxy Agencies</td>
<td>Chamber of Commerce and Industry of Romania</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Asociatia pentru Protectia Consumatorilor</td>
<td>N/A</td>
</tr>
</tbody>
</table>
4. COUNTRY PROFILE: GEORGIA

4.1. COUNTRY SNAPSHOT

The Georgian economy has recovered since the shock of the Russian conflict in August 2008, followed by the global credit crunch in October. As of Q3 2011, the 5 biggest banks in Georgia in terms of market share by total assets were – Bank of Georgia (35%), TBC Bank (25%), ProCredit Bank (7%), Liberty Bank (6%) and Bank Republic (5.74%). The monetary and supervision policies in this sector are set by the National Bank of Georgia. At present subsidiaries and branches of commercial banks from Turkey (HALYK BANK, Ziraat Bank), Azerbaijan (The International Bank of Azerbaijan), Russia (VTB), Kazakhstan (BTA), Germany (Procredit Bank), France (Bank Republic-Societe General), Ukraine (TAO-Privat Bank) and Great Britain (HSBC) are operating in Georgia.

Telecommunications in Georgia include three cellular telephone networks of GSM 900 and 1800 standard and two UMTS 2100 standard provided by the following companies – Geocell (46%), MagtiCom (43%) and Mobitel Georgia Beeline group (11%).

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4. From ‘Half the World is Unbanked’ published in Oct 2009 by Financial Access Initiative. Honohan presents estimates of the fraction of the adult population (aged 15+) using formal financial and semi-formal (i.e., from unregulated microfinance institutions) services by combining data from banks and microfinance institutions with household surveys.
4.2. **COUNTRY OVERVIEW – IN TERMS OF BUILDING BLOCKS**

<table>
<thead>
<tr>
<th>Customer Considerations</th>
<th>Mobile Capabilities</th>
<th>Financial Services</th>
<th>Mobile Money Enablers</th>
<th>Political and Economic Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

**Customer Considerations**

Donors were swift to respond to the Russian conflict and aid totalling $4.5 billion was pledged to help with recovery, followed by Georgia’s withdrawal from the CIS in 2009. Consumer adoption seems low but increasing as more and more donor lines are being actively pursued by former state banks newly privatised.

53% of the population is urban. UNESCO Institute for Statistics has reported Georgia to have a rating of 100 out of 100 in terms of financial literacy. No agency is in place to administer Consumer Protection. However Article 3 of the constitution does allow for consumer protection rights. This responsibility is shared among all ministries responsible for a given industry. The difficulty has been tracking complaints and the % of resolution. And little data exists on penalties given. Enhanced due diligence procedures exist for enforcing Know-Your-Customer (KYC) rules.

Georgia is fairly well-suited for mobile banking in terms of mobile phone use, the levels of people who do not use bank services and the absence of major legislative hurdles. The country’s relatively small size also seems to make it more likely that the level of mobile banking acceptance could reach the critical mass necessary for some of the real benefits to emerge.

**Mobile Capabilities**

Mobile penetration rate was at 91% at the end of 2010 representing 3.98 million subscriptions. This rate should have surpassed 100% coming into 2012. MagtiCom was awarded Georgia’s first 3G licence in 2005, followed by a further two licences 3G in 2006. Magticom and Geocell have already developed 3.5G systems in Georgia and there are plans to develop 4G after 2012.

Mobile communication systems have become increasingly important for Georgia since the fixed-line networks in many parts of the country remained outdated (particularly in rural and remote areas) and the mobile network represented the only means of communication. Mobile coverage has now been provided for virtually the whole of Georgia. The leading Mobile Network Operators - Magticom, Geocell
and Mobitel have covered 95% of populated area with their mobile network coverage. Numerous MVNOs are providing services in this market as well.

During 2003-2008, there were a number of reforms in the field of telecommunications, aimed at liberalisation and integration with the international telecommunication community - one of the key priorities of the country.

A new company (G-Net), founded in 2011, has been leveraging fibre and Wi-Fi to tap subscribers residing in rural regions of Georgia. It is part of a Government of Georgia initiative to increase digital service penetration in rural regions. With the introduction of G-Net there has been an increase (in the last 3 quarters of 2011 and Q1 of 2012) of Smartphones by 37%.

Financial Services and Mobile Money Enablers

Georgia has no state-owned banks and foreign investment in the banking sector has been actively encouraged. National Bank of Georgia, the central bank, reported at the end of 2010 that of the 19 commercial banks licensed to operate in Georgia, 16 were foreign-controlled or had a substantial foreign investor, accounting for more than 80% of banking sector assets. The five biggest banks own 80% of banking sector assets and top three more than 60%. Competition within the banking sector is perceived to be high - HSBC left because of competition but other banks have twice increased their credit portfolio over the last year, meaning the profit has been high in the sector.

By the end of 2010, Liberty Bank reported the biggest retail presence in Georgia, with 1.7 million customers and 192 branches, the most extensive network.

The Georgian diaspora of about 1 million people generated remittances equal to 8.2% of GDP in 2010. According to IFAD, the UN International Fund for Agricultural Development, in the past 10 years 20% of Georgians have left the country to find work and support their families. They are estimated to send back about $500 million per annum, mostly from Greece, Russia, Germany and the US. The dramatic recent increases in remittances seem to suggest that not only is the market large, but it is highly responsive to improvements in service provision. Therefore, using mobile phones and a local agent network to make remittance delivery easier would seem to offer a clear opportunity to take market share. However, remittance services that are currently provided in Georgia are already pretty good. The key selling point for any new transfer system is, therefore, likely to be improved accessibility and convenience of the network rather than cost. IFAD has started a FFR project which creates an enabling environment for the introduction of mobile remittance and banking services through its collaboration with International Organisation for Migration by setting up Mobile Remittance platforms.
84% of the population in Georgia is unbanked which represents 2.6 million people. It seems as though Georgia may be able to provide an intensive network of paperless payment services. Since accepting paperless payment involves few if any additional costs to the vendor, increasing uptake would seem to be a matter of persuasion and education. In Georgia one could, relatively cheaply, develop a national education and marketing campaign to achieve this. This would offer the opportunity in Georgia, for the first time, not just to use mobile banking as a mechanism for transferring money more efficiently, but also for plugging cash holdings into a wider range of financial services.

Political and Economic Environment

In the latest Doing Business Report (2011), Georgia is ranked 16th out of 183 economies. The most significant improvements relate to two indicators. In Getting Credit, Georgia improved access to credit by implementing a central collateral registry with an electronic database accessible online. The country also strengthened investor protections by allowing greater access to corporate information during the trial.

GDP PPP grew by about 3.52% year-on-year from 2008 to 2011. The government is trying to create an environment to support strong market growth. This is not only through incentives such as an IT Zone involving tax reliefs for software development, but also by increasing ICT demand through e-Government, e-Learning, and other ways.

In the meantime Georgia’s on-going tension with Russia continues to provide a level of uncertainty for the country and the future direction of its social and economic development.

4.3. Payments Overview

Georgian banks have renewed their growth momentum in acceptance networks, with ATM installations accelerating during 2009 and 2010. With 405 ATMs at the end of 2010 (2008: 416; 2009: 392) Bank of Georgia represented 27% of the network. Liberty and ProCredit reported 203 and 110 ATMs respectively as at end-2010.

- Issuance of credit cards, negligible up to 2006, exploded in 2007 and 2008, but subsequently feel back.
- ATM withdrawals have shown uninterrupted growth, rising by two-and-a-half times between 2007 and 2010.
- The trend in POS payments at merchant outlets has been uneven, but numbers and values reached new record levels in 2010.
Internet transactions in Georgia on Georgian issued cards have almost doubled in the two years ending 2010, while the value increased by nearly 150% over the same period.

The Georgian diaspora of about 1 million people generated remittances equal to 8.2% of GDP in 2010.

### 4.4. OPPORTUNITY SUMMARY FOR GEORGIA

<table>
<thead>
<tr>
<th>Mobile Money Transfer</th>
<th>Mobile Payments</th>
<th>Mobile Banking</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

Improving growth rate among SMEs in Georgia along with improving telco coverage are the key positives for Georgia. The challenges would be – dominant cash-only culture, political instability, reconstruction costs from 2008 war. With a high ‘Ease of Doing Business’ ranking Georgia is certainly an attractive target for overall transformation using mobile money services.

- **Mobile Money Transfer** – Opportunities for mobile money transfer may exist if there are incentives for feeless transfers subsidised by local government or a cooperative model with local and foreign offshore originating banks.

- **Mobile Payment** – There are opportunities for salary payments from Service industry and G2P payments over the medium term, provided that government works with local banks to facilitate SMS based business fees and tax collections in addition to disbursement of social assistance.

- **Mobile Banking** – Low opportunity given the lack of sophistication among bank users unless one considers the relatively high rate of internet banking in Tbilisi where these services are being offered by existing players.
### 4.5. **Secondary Indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
<th>Group Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic payments used to make payments (% age 15+)</td>
<td>1.99</td>
<td>13.69</td>
</tr>
<tr>
<td>Mobile phone used to pay bills (% age 15+)</td>
<td>0.70</td>
<td>3.73</td>
</tr>
<tr>
<td>Mobile phone used to receive money (% age 15+)</td>
<td>1.02</td>
<td>3.12</td>
</tr>
<tr>
<td>Mobile phone used to send money (% age 15+)</td>
<td>0.68</td>
<td>2.62</td>
</tr>
<tr>
<td>Point-of-sale terminals (per 100,000 adults)</td>
<td>168.56</td>
<td>610.87</td>
</tr>
<tr>
<td>Saved any money in the past year (% age 15+)</td>
<td>6.99</td>
<td>23.56</td>
</tr>
<tr>
<td>Account at a formal financial institution (% age 15+)</td>
<td>32.98</td>
<td>45.93</td>
</tr>
<tr>
<td>Saved at a financial institution in the past year (% age 15+)</td>
<td>1.05</td>
<td>9.00</td>
</tr>
<tr>
<td>Branches, commercial banks (per 100,000 adults)</td>
<td>18.62</td>
<td>22.29</td>
</tr>
<tr>
<td>Credit card (% age 15+)</td>
<td>8.79</td>
<td>11.92</td>
</tr>
<tr>
<td>Debit card (% age 15+)</td>
<td>20.23</td>
<td>35.04</td>
</tr>
<tr>
<td>Strength of legal rights index (0=weak to 10=strong)</td>
<td>8</td>
<td>6.21</td>
</tr>
</tbody>
</table>

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IN-COUNTRY FINDINGS – PHASE 2

4.6. KEY MARKET INSIGHTS FOR GEORGIA

Relatively easy access to financial services
- Banking penetration is reasonably high with about 1500 bank branches in all. Leading bank (Bank of Georgia) has 160 branches
- In urban areas, almost 70% of population aged between 18-65 have access to financial services
- Not dangerous to carry cash unlike other developing countries
- Distances in Georgia are small

Banks trying to differentiate but burdened with a heavy cost structure
There is immense competition among banks resulting in banks not collaborating with each other. Each bank has their own processing centre resulting in massive costs which are then passed on to the customer in the form of fees. Moreover, Georgia is still very much a cash economy, which results in high volume of low value transactions burdening bank branches with customer queues and decreasing their efficiency. Almost 90% of all customers use the bank branch for banking products/services outside of its core focus area.

Payboxes increasing in popularity to fulfil individuals payment needs
Payboxes are gaining tremendous popularity as they fulfil the necessary daily service and payment requirements. They also cost a third of ATMs. Payboxes are small to medium sized self-service machines which are located in shops and markets, busy streets, railway/airport stations, and often in the localities where there are no bank branches. This allows the banks and the telcos to have minimal service centres/agent network. Paybox companies are also providing gambling services on their terminals to cash in on this addiction particularly among Georgian youth.

Failed attempt at creating Mobile-Wallet deterring new initiatives
Several key companies, including telcos do not see the immediate commercial benefit of mobile-money transfer and mobile payments due to the recent bankruptcy of MobiPay, a Georgian company who had introduced their own mobile wallet for the Georgian market. The primary reasons for their failure were poor user experience particularly for loading money in the wallet and the fact that only Geocell (leading mobile operator) customers were offered this service. Companies looking to launch new mobile money transfer and payment services are looking to build a universal solution as opposed to their own parallel payment network like MobiPay.
Volumes could limit commercial success for M-Money initiatives
The 4m mobile subscribers represent the total market potential for m-money. M-money providers would have to rely on m-money consumption from these subscribers in order to drive their commercial success. This would include changing consumer habits to get them to utilise their mobile phones for conducting financial services as opposed to the existing channels including the internet accessed via PCs. eCommerce is on the rise with the advent of internet (2 major internet providers have spent $50m each to broaden connectivity) and wireless broadband. Online retailers such as eBay are seeing increase in activity. Only 3-5 key local players providing value-added services for mobile with max. revenue of only 100k GEL/each.

4.7. MOBILE MONEY ECOSYSTEM

- Money transfer market
  - In January-November 2011 the remittance market reached $1.074 billion. $998.4 million were transferred to Georgia (mainly from Russia – 50%, the USA, Greece and Italy) and $75.752 million from Georgia (mainly to Russia and Ukraine). In 2011 net remittances were around 9% of GDP in Georgia.

Figure: International remittance flows into Georgia in 2011 Percentage (courtesy: National Bank of Georgia)
Western Union is considered to be the leader in the Georgian remittance market with a market share of 18.05% representing an amount of $193.7 million in 2011, out of which $165.1 million were transferred into Georgia and $28.6 million out of Georgia. The second place goes to Unistream, with a market share of 16.34% followed by Gold crown with 11.89% market share. The remaining market is shared between Contact (9.72%), Anelik (9.52%), MoneyGram (7.41%), RIA (5.68%), Intel Express (5.57%), Quick Post (3.55%), Leader (2.83%).

Georgia is a small country that has seen a significant outflow of migrants and at the same time a large inflow of foreign currency. Unofficial remittances are large and amount to roughly 40% of the total amount of remittances.

- Payments market
  - Customers can make numerous transfers/payments via Payboxes which are currently being offered by 3 primary companies:
    - OSMP (39-45% market share)
    - Novatech (40-41% market share)
    - TBCPay (15-20% market share)
  - Using Payboxes, consumers can only deposit cash or perform a passive transaction (balance enquiry) in terms of banking. They can be operated via touch-screen, where consumers can choose the required operation such as Utility bill payments, mobile phone or travel card top-ups, loan repayment by cash, ticket acquisition, parking fee payment or other (more than 120 different services and the list is growing) and entering necessary parameters (e.g. your provided bill.
number or mobile phone number). After depositing appropriate amounts in the receiving box for coins and/or banknotes request is completed within a couple of seconds. Customer receives a paper bill certifying operation fulfilment.

- Banks are offering cardless money transfer via SMS. Non-bank customers can enter a code received on their mobile via SMS into the ATM machine to withdraw cash.
- MasterCard currently works in co-operation with Georgian banks for launching a pilot of payment services based on NFC technologies.
- Bank of Georgia has 70% of market share for POS terminals.

- **Key Occasions of Payment**

- Payboxes, POS terminals (cards) and cash are the primary modes of payment.
- Mini-buses are a popular mode for rural habitants to not only receive money but also to effect payments. Liberty Bank runs this service.
- Population prefers to pay for services (such as airtime top-ups) in smaller amounts more frequently as opposed to larger amounts on a less frequent basis.
- Bank of Georgia has recently introduced ‘Express cards’ enabling bank customers to make quick and easy payments for goods, services and transportation. There has been good uptake among the urban population because of the ease of use.
- Cash continues to be the primary mode of payment in Georgia.

- **Post Office**
  - Effective May 2008, public utility payments are available in 44 Georgian Post Offices throughout the country. Ingenico multiline terminals with upgraded software used to support the public utility payments together with other financial operations.

- **Water - EAP Task Force report**
  - “The lack of the essential organisational and technical efforts at Georgian water and sewerage utilities also stems from the low paying capacity of their principal customers. The majority of population, budget financed organizations and some enterprises cannot pay their potable water and sewage disposal bills.”
  - “At present, residential customers pay for a mere 15%-20% of all water consumed. This has created major financial difficulties for utilities, which are unable to pay for electricity and delay salaries for 6-8 months.”
**Mobile Wallet**

- MobiPay introduced a mobile wallet for the Georgian market which allowed consumers to:
  - Pay for utility bills – Telasi (electricity), Kaztransgazi (Gas), GWP (Tbilisi Water Power), Silknet (telecom provider), Global TV (cable TV)
  - Pay at merchant locations, such as shops, supermarkets, pharmacies, cafes, restaurants and gas stations
  - Send money (P2P) in a matter of a few seconds
  - Airtime top-ups
  - Bank loan re-payment
  - Transfer money to bank account
- MobiPay stopped this service in mid-2012
- No mobile wallet in the market today

**Mobile Banking**

- Branchless banking started in 2007-2008 with the introduction of online banking.
- Banks offering Mobile-Banking services on WAP and native apps for various mobile platforms such as iOS, Android etc.
- Key Rationale
  - Expansion of capabilities and customers
  - Creation of additional channels as opposed to branches (cost perspective)
- Education remains the biggest hurdle for mobile banking uptake. According to a survey conducted by Bank of Georgia, 55% of its educated customers made mistakes with branchless banking.

**Unbanked**

- According to sources at Liberty Bank, the unbanked number has dropped to 1m which contradicts other public reports
- Liberty Bank sends mobile vans to rural areas particularly for distributing pensions
- Perception among the banks is that unbanked have minimal disposable income and hence monetisation with this segment will be limited

**Regulation**

- Consumer protection issues need to be tackled immediately – such as not being able to see the amount that customer is paying via POS terminals
- Regulation has been put in place to facilitate usage of various payment instruments emulating the EU directive
Regulation also in place for the provision of mobile wallet but is not crystal clear which makes it subject to interpretation.

Currently, merchants can only accept m-payments but cannot use it to pay salaries etc. Merchants and emerging mobile money players need support from Payment Services Department from Central Bank to introduce new laws that meet the needs of the market.

4.8. **NOTEWORTHY PRODUCTS:**

- **Bank of Georgia** – Mobile Banking App for smartphones and mobile devices launched in May 2012
  - This app allows customers to:
    - Receive information about accounts, deposits, credit cards and loans
    - Transfer money;
    - Pay utility and other bills;
    - Send Elva money transfer;
    - Find nearest ATM or Service Center;
    - Receive recent currency exchange rates and calculate converted values;
    - Save templates of preferred operations and save your time;
    - Change your username or password;
    - Block lost cards

- **PortMoney** - Mobile Phone Application from OSMP
  - OSMP has launched PortMoney.ge which has been implemented successfully.
  - Goal of PortMoney.ge is to create universal and adroit electronic payment system - mobile money
• It partially replaces the need for cash, unites methods of bank card payment and electronic money
• It will be possible to purchase different products and services any time and in every circumstances by mobile money
• It also allows consumers to manage bank accounts and finances, make payments on virtual and real marketplaces, transfer money etc.
• PortMoney account servicing is possible via Self-serving Paybox Terminals, POS-Terminals, Windows/Java Terminals, Online Terminals, www.gadaixade.ge, www.portmoney.ge

4.9. **EXISTING BARRIERS**

• Payment infrastructure is widely available and user-friendly
• People have reasonably good access to financial services
• Mobile operators have not played a pivotal role in the development of mobile-money in Georgia – they remain sceptical after failed attempts in recent past
• Population not tech-savvy, thus companies might have to spend a lot on educating end-users on usage
• Internet usage has grown tremendously thus providing people with the means to conduct financial services online

4.10. **GAPS AND OPPORTUNITIES**

• There is an existing gap in the market for a universal P2P money transfer solution which needs to be independent of mobile operators, banks but integrates with existing payboxes for servicing

4.11. **THREATS**

• Banks and telcos are siloed. No current joint ventures and partnerships in place which could limit interoperability of future m-money services
• Low consumer adoption could further weaken the commercial case for revenue generation for mobile-money
• Consumers have numerous payment options in the marketplace

4.12. **HOW CAN EBRD HELP DEVELOP THE GEORGIAN MOBILE-MONEY MARKET?**

• Refer to the Opportunity Sheets
“GEORGIA”

Mobile Money Opportunity # 1: Invest in Mobile Finance Eurasia (MFE) JSC

<table>
<thead>
<tr>
<th>COMPANY SNAPSHOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Mobile Finance Eurasia is a mobile finance consultancy established in 2009 with networks in mobile money industry, expertise in technology and regulatory aspects of mobile finance and methodology for designing agents' network.</td>
</tr>
<tr>
<td>• MFE wants to set up mobile-wallet services throughout Georgia over 1-2 years and internationally over 5 years</td>
</tr>
<tr>
<td>• MFE has secured initial funding but seeks equity investment of up to $3-4m (with 25% equity stake) for expanding services to 15 countries over 5 years.</td>
</tr>
<tr>
<td>• JSC Mobile Finance Eurasia is registered in Tbilisi, Georgia as a Joint Stock Company (registration number: 205273292).</td>
</tr>
<tr>
<td>• MFE has 7 full-time employees with in-house call-centre capability and a pay-per-use agreement with UTIBA for mobile-money systems usage.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPPORTUNITY ANALYSIS SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Consider investing in MFE to enable them to scale up mobile-wallet services throughout Georgia over 1-2 years and internationally over 5 years</td>
</tr>
<tr>
<td>• MFE needs to build solid partnerships with key players – banks, merchants, telcos to make its solution all-pervasive</td>
</tr>
<tr>
<td>• While the mobile wallet could fill a gap in the market and potentially provide greater financial access to the unbanked, it is still unclear how MFE intends to generate sufficient revenue to meet ROI targets given the relatively low population numbers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EBRD SUPPORT REQUIREMENTS</th>
<th>KEY REGULATORY CHANGES NEEDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Equity investment of up to $3-4m (with 25% equity stake) for expanding services to 15 countries over 5 years</td>
<td></td>
</tr>
<tr>
<td>• Technical assistance required for auditing IT security system and business processes for fraud prevention</td>
<td></td>
</tr>
<tr>
<td>• Facilitate key regulatory changes</td>
<td></td>
</tr>
<tr>
<td>• Currently, merchants can only accept m-payments but cannot use it to pay salaries etc. Need support from Payment Services Department from Central Bank</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CURRENT POSITIONING IN MARKET</th>
</tr>
</thead>
<tbody>
<tr>
<td>• No active mobile wallet in market today</td>
</tr>
<tr>
<td>• Initial funding secured for soft-launch of their mobile-wallet 'Kerketi' in January 2013</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXISTING INITIATIVES</th>
<th>CURRENT PAIN-POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Previous attempt at launching wallet by MobiPay in partnership with Geocell, the leading mobile network provider in Georgia, led to bankruptcy.</td>
<td></td>
</tr>
<tr>
<td>• Existing mobile money services do not allow P2P money transfer</td>
<td></td>
</tr>
<tr>
<td>• Limited financial access for rural population in the low-income band</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>M-MONEY VALUE PROPOSITION</th>
<th>GO-TO-MARKET</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MFE to launch ‘Kerketi’</strong> which is a universal mobile wallet capable of operating on all mobile networks and practically any mobile handset in Georgia.</td>
<td></td>
</tr>
<tr>
<td>This multi-currency, multi-channel, secure and versatile mobile wallet to support: person-to-person transfers, international remittances, merchant payments (proximity and online, customer and merchant-initiated, individual or bulk payments), utility and bill payments, air-time top-ups etc.</td>
<td></td>
</tr>
<tr>
<td><strong>Soft-launch Kerketi in domestic market with target customer base of 50k (banked and unbanked) by end of 2013</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Mid-term target of reach 0.5m customers in 3-5 years along with international expansion to 15 countries</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Collaborate with key financial institutions, remittance providers, merchants to build acceptance network</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Existing team of 7 along with in-house call-centre. Infrastructure being provided by UTIBA (pay-per-use basis)</strong></td>
<td></td>
</tr>
</tbody>
</table>

**KEY BENEFITS/IMPACT**

- An opportunity to engage unbanked in the formal financial sector; reduced risks associated with the use of cash
- To reduce cost and simplify Government to People (G2P) payments as well as money collection services.

**POSSIBLE CHALLENGES AND RISK**

- Profitability could be challenging given the limited volume of domestic customers who already have reasonably good access to financial services
- Customer trust another challenge given low brand equity
- Partnerships with key players could be hard to come by given MobiPay failure
- It will be a great challenge for MFE to acquire customers from scratch without partnering with major banks/telcos

**KEY DEPENDENCIES**

- Partnerships and collaborations will be a key dependency that could drive success
- Further expansion of Payboxes could limit the gap that MFE is trying to fill in market
- Operational expertise required from MFE team for go-to-market

**SUGGESTED NEXT STEPS FOR EBRD**

- Short-term: Consider providing technical audit assistance to MFE
- 2013: Closely monitor projected growth rates post-launch of Kerketi
- Perform extensive due-diligence process if growth rate meets targets for investment consideration

**CONTACT DETAILS**

JSC Mobile Finance Eurasia  
5 Marjanishvili Street  
Tbilisi 0102, Georgia  
Phone: +995 32 970 128  
Fax: +995 32 970 129  
Email: info@mfeurasia.com  
www.mobilefinanceeurasia.com
“GEORGIA”

Mobile Money Opportunity # 2: Invest in **OSMP (QIWI)**

### COMPANY SNAPSHOT

- OSMP is one of the leading payment systems providers in Georgia with a market share of 40%.
- OSMP has the largest network of payment terminals (~4000) in Georgia which allows consumers to pay their bills for utilities, airtime top-ups etc.
- OSMP established itself in Georgia in 2006. It also operates in Kazakhstan, Ukraine, Tajikistan, Uzbekistan, Moldova, Belarus and Armenia.
- OSMP seeks investment/loan to go-to-market faster with the universal payment platform for mobiles
- OSMP is registered in Tbilisi, Georgia.

### OPPORTUNITY ANALYSIS SUMMARY

- Enable OSMP to go-to-market faster with the universal payment platform for mobiles
- Help connect the PortMoney platform to acquiring systems of banks allowing more customers to use the services
- Currently OSMP processes 10 million transactions/month with 4000 terminals. With an increase in the number of handheld clients (PortMoney Apps on mobile devices) it could target almost 400,000 customers (10% smartphone penetration in Georgia) if it can successfully rope in major banks

<table>
<thead>
<tr>
<th>EBRD SUPPORT REQUIREMENTS</th>
<th>KEY REGULATORY CHANGES NEEDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment/loan for a quicker go-to-market</td>
<td></td>
</tr>
<tr>
<td>Facilitating the participation of additional banks</td>
<td>No major changes required at present</td>
</tr>
</tbody>
</table>

### CURRENT POSITIONING IN MARKET

- OSMP is currently head-to-head with Novatech in the Paybox (payment terminals) market with 40% share

### EXISTING INITIATIVES

- 2000 self-serving payment terminals across the country functional 24/7
- POS terminals for retail payments
- Windows terminals for instant payments over the internet
- Java terminals for mobile phones

### CURRENT PAIN-POINTS

- Non-existence of a universal payment system which could allow existing internet banking/payment customers to migrate to doing the same on mobile.

### M-MONEY VALUE PROPOSITION

<table>
<thead>
<tr>
<th>GO-TO-MARKET</th>
</tr>
</thead>
</table>
With PortMoney, customers can:
- Make payments to different service providers;
- Make purchases of products and services online;
- Make payments in large and small shopping malls (By using NFC technology, or switching on the providers in the system);
- Transfer money
- Manage accounts and finances

Phase 1 (launched in 2011)
- Targeting 2nd generation mobile phone users with Java-based applications

Phase 2 (initial launch in Aug 2012)
- Targeting urban smartphone users + smartphone users in the premium segment with native apps
- Currently only VTB and KSB bank connected with PortMoney. Hence next step is to connect this to acquiring system of major banks via Visa, MasterCard.

KEY BENEFITS/IMPACT
- Allows consumers to migrate to the mobile realm for conducting payments by extending the services already available on the OSMP Paybox thus merging online and offline experiences for users
- Standardised user interface and services across all channels could mean a better user experience potentially leading to a higher consumer adoption rate
- With NFC chips embedded in the Bank cards, the POS experience will be further simplified and mobile-app users of PortMoney

POSSIBLE CHALLENGES AND RISK
- Getting the major banks to agree to participate as it will level the ground with non-major banks
- Consumers seem to be comfortable with existing Paybox and online banking/payment services in the market leading to poor consumer adoption rates
- OSMP’s PortMoney solution will compete not only with other Paybox providers but also mobile offerings from banks such as Bank of Georgia

KEY DEPENDENCIES
- Major banks have to become part of OSMP’s network for the solution to be universal
- Since OSMP is targeting smartphone users with PortMoney, increase in smartphone penetration would be an important lever for growth

SUGGESTED NEXT STEPS FOR EBRD
- Perform extensive due-diligence on OSMP
- Connect with key banks to gauge their interest for joining the OSMP payment network
- Connect with MagtiCom’s new CEO for discussing potential collaboration opportunities

CONTACT DETAILS
OSMP
Chachava Str #8, (Beliashvili str.), 5th floor
Tbilisi, Georgia
Phone: (995 32) 2 43 99 59
Email: info@osmp.ge
WWW.OSMP.GE
## 4.13. Key Organisations in the Ecosystem

<table>
<thead>
<tr>
<th>Segments</th>
<th>Companies</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Telcos</strong></td>
<td>MagtiCom</td>
<td>43%</td>
</tr>
<tr>
<td></td>
<td>GeoCell</td>
<td>46%</td>
</tr>
<tr>
<td></td>
<td>BeeLine</td>
<td>11%</td>
</tr>
<tr>
<td><strong>Banks</strong></td>
<td>Bank of Georgia</td>
<td>35%</td>
</tr>
<tr>
<td></td>
<td>TBC Bank</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>ProCredit Bank</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>Liberty Bank</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>Bank Republic</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Payment infrastructure Companies</strong></td>
<td>OSMP</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>Novatech</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>TBCPay</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Additional 3rd Party Players</strong></td>
<td>Micro Finance Eurasia</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Anelik</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>CyberPlat</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Regulators</strong></td>
<td>National Bank of Georgia</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Georgian National Communications Commission (GNCC)</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Consumer/Business Proxy Agencies</strong></td>
<td>Consumers Union of Georgia</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>International Chamber of Commerce - Georgia</td>
<td>N/A</td>
</tr>
</tbody>
</table>
5. COUNTRY PROFILE: UKRAINE

5.1. COUNTRY SNAPSHOT

Ukraine was one of the worst affected countries following the onset of the global financial crisis. Industrial output slid by more than 30% in a matter of months. In 2011, Ukraine followed a moderate recovery of economy after the crisis, GDP accounted for $329 billion after $312.7 billion in 2010, with a growth rate of 5.2%. Inflation rate declined with 9% in 2011, after 9.4% in 2010. Ukraine has a large labour market with 22.09 million economically active people in 2011, with the unemployment rate of 7% in 2011. 35% of population lives below poverty line.

The banking system in Ukraine is two-tiered, comprising the central bank of the country and commercial banks. The central bank of Ukraine is the National Bank of Ukraine (NBU) which controls the national currency, supervises the banking system and issues current banking regulations. Commercial banks operate under the authorisation and supervision of the NBU, including the state-owned Export-Import Bank (Ukreimbank) and a specialised commercial Savings Bank (Oschadnybank).

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6 From 'Half the World is Unbanked' published in Oct 2009 by Financial Access Initiative. Honohan presents estimates, of the fraction of the adult population (aged 15+) using formal financial and semi-formal (i.e., from unregulated microfinance institutions) services by combining data from banks and microfinance institutions with household surveys.
The Ukrainian banking system has been the most developed and advanced part of the financial system of the country. Aided by on-going economic expansion and currency stability, the banking system has grown rapidly, although it has been affected by the downturn in the global economy.

There are 194 registered banks in Ukraine, 176 among them have licenses for performance of banking operations, and 52 banks are the ones with participation of the foreign capital, including 20 with 100% foreign capital. Most banks are closed joint-stock companies; there are only three state-owned banks – National Bank of Ukraine, Eximbank and Savings bank. The role of foreign capital in Ukrainian banking system is gradually increasing. There were 20 banks with 100% foreign capital in 2010. The share of foreign capital in the statutory capital of Ukrainian banks accounted for 35.8% in 2010.

The telecommunications market in Ukraine has seen strong growth although growth is slowing due to the maturing market. Services are offered by four major network operators, two of which dominate the market. Foreign operators have a significant presence in the market, particularly those from neighbouring Russia. There are over 41 million mobile phone subscribers in Ukraine. The mobile market is a highly competitive and quickly evolving environment. Most of the coverage is still concentrated in major urban centres, but wireless carriers are aggressively investing in infrastructure to achieve countrywide service coverage and deliver value added services over next generation networks.

5.2. **COUNTRY OVERVIEW – IN TERMS OF BUILDING BLOCKS**

<table>
<thead>
<tr>
<th>Customer Considerations</th>
<th>Mobile Capabilities</th>
<th>Financial Services</th>
<th>Mobile Money Enablers</th>
<th>Political and Economic Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

**Customer Considerations**

In Ukraine, population is relatively educated, given high share of urban population (68%), though people have very strictly scarce resources with €5,776 GDP per capita and 35% below the poverty. Only about 25% of the population using Financial Services trusts the system – though this rate has been increasing steadily.

Lack of trust in the banking system is compensated by the interest in using mobile services. Mobile phones subscriptions reached 53.9 million and the penetration rate is 119%.
Mobile Capabilities

Ukrainian telecommunication market has been actively developing. The volume of investment in telecommunications is high in comparison with other CIS countries. 3G network covers more than 95% of the territory of Ukraine and representing 99% of the population. However, further development relies heavily on the process of licensing, tenders of channels and distributions. Smartphone penetration is relatively low with only 12% of mobile users, which is slowing down the growth of mobile banking services. The market is concentrated with major players as Kyivstar 40%, MTS 35%, life:) 21%, Beeline 3%.

45% of the population regularly use the Internet. During the 2011 Internet penetration in Ukraine has increased by 10% and the number is rapidly growing. Total amount of Mobile Internet users in 2011 is app. 17.4 million users (app. 39% of Ukrainian population).

Financial Services and Mobile Money Enablers

Most banking services are available in Ukraine. Intermediation costs remain fairly high, although the presence of Western banks, particularly in retail banking, should force the sector to become more efficient over time.

In Ukraine, the proportion of banked population is very low: only 25% of the Ukrainians use financial services. The central bank reported the number of active payment cards in the country was currently over 32,500, decreasing by 6% by 2012. In addition, there are about 120,000 payment terminals and the number of ATMs has increased by 3% in 2011 to 32,000.

In terms of platform providers in Ukraine, there are 26 unique system solutions, 6 vendors (development companies) software for banks and some online payment systems represented on the market of Internet banking.

Political and Economic Environment

Political and economic environment in Ukraine lacks stability (-0.12), level of political liberalisation is low, economic environment liberated between low and medium (46.1). The governmental barriers are inhibiting entrepreneurs from doing business in Ukraine. The percentage of shadow economy is estimated to be at 50%.
5.3. PAYMENTS OVERVIEW

Ukrainian banking system is recovering from a sharp contraction. In spite of this, Ukraine is more advanced in certain forms of mobile payments in comparison to Russia and CIS countries.

- Contactless payments with PayPass cards have seen rapid growth. The number of payment terminals enabling these payments have risen to 5000.
- Total number of payment cards in circulation to December 2009 44.5 million.
- The total number of active payment cards issued by Ukrainian banks (payment cards against which at least one operation per year was performed) reduced by 25% totalling 29.1 million.
- 99% of cards classed as personal cards, debit cards account 82% of all cards.
- 97% of all cards have payment and cash withdrawal functions.
- ATM numbers grew by 4% in 2009 compared to 2008.
- POS payment terminals fell by 12% in 2009.
- Higher unemployment led to reduction in card usage and decrease in value and volume of operations.
- 590.6 million card transactions were carried out with a value of $0.325 billion compared to 2008, to $0.308 billion.
- Non-cash payments account for 5% of card transactions. Up by $1.28 million to $16.92 million in 2009.
- Average annual turnover per card grew by 12% to $9.56 in 2009.

5.4. OPPORTUNITY SUMMARY FOR UKRAINE

<table>
<thead>
<tr>
<th>Mobile Money Transfer</th>
<th>Mobile Payments</th>
<th>Mobile Banking</th>
</tr>
</thead>
<tbody>
<tr>
<td>🟠</td>
<td>🟩</td>
<td>🟩</td>
</tr>
</tbody>
</table>

The growth of the young and educated demographic combined with a growing demand for smartphones and internet coverage represents an attractive opportunity for the growth of Mobile Money services. The presence of certain challenges that need to be overcome marginally limit the attractiveness - political
instability, large country requiring more telco infrastructure and also an extensive bricks and mortar banking network which is still preferred over mobile services.

- **Mobile Money Transfer** – International remittances are currently low. However, infrastructure for services and platforms is developing rapidly, and is being introduced to the market. As more SME’s expand into other former Yugoslav countries and Russia, there exists opportunities for international remittances to pay for finished goods and supplies. Moreover, over past two years the number of non-cash transactions increased by more than 60%. Market of cashless mobile payments and e-commerce on the stage of rapid growth.

- **Mobile Payment** - Opportunities exists with simple SMS based, M-Wallet, or NFC funds transfer provided costs are borne by telco and Bank. Consumer adoption should be high considering positive trends in device penetration rates and rates of growth for smartphones market (tend to 15%), mobile Internet (app. 40%) and mobile services usage.

- **Mobile Banking** – These services can be successful if behavioural modification techniques are employed to induce older, profitable customers to move away from branch based transactions along with strong marketing messages.
5.5. **Secondary Indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
<th>Group Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic payments used to make payments (% age 15+)</td>
<td>6.37</td>
<td>13.69</td>
</tr>
<tr>
<td>Mobile phone used to pay bills (% age 15+)</td>
<td>1.73</td>
<td>3.73</td>
</tr>
<tr>
<td>Mobile phone used to receive money (% age 15+)</td>
<td>7.81</td>
<td>3.12</td>
</tr>
<tr>
<td>Mobile phone used to send money (% age 15+)</td>
<td>8.95</td>
<td>2.62</td>
</tr>
<tr>
<td>Point-of-sale terminals (per 100,000 adults)</td>
<td>292.60</td>
<td>610.87</td>
</tr>
<tr>
<td>Saved any money in the past year (% age 15+)</td>
<td>24.97</td>
<td>23.56</td>
</tr>
<tr>
<td>Account at a formal financial institution (% age 15+)</td>
<td>41.27</td>
<td>45.93</td>
</tr>
<tr>
<td>Saved at a financial institution in the past year (% age 15+)</td>
<td>5.41</td>
<td>9.00</td>
</tr>
<tr>
<td>Branches, commercial banks (per 100,000 adults)</td>
<td>2.31</td>
<td>22.29</td>
</tr>
<tr>
<td>Credit card (% age 15+)</td>
<td>19.33</td>
<td>11.92</td>
</tr>
<tr>
<td>Debit card (% age 15+)</td>
<td>33.57</td>
<td>35.04</td>
</tr>
<tr>
<td>Strength of legal rights index (0=weak to 10=strong)</td>
<td>9</td>
<td>6.21</td>
</tr>
</tbody>
</table>

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IN-COUNTRY FINDINGS – PHASE 2

5.6. Key Market Insights for Ukraine

Banks together with payment schemes (MC, Visa) are enablers of mobile money offerings
Banks are collaborating with MNOs to bring mobile money services to market, but according to current legislation, MNOs cannot have financial licences to provide M-Money services. MNOs could consider acquiring a bank, but this trend is not active, as they do not see business case in this. On the other hand, banks are collaborating with payment schemes (MasterCard, Visa) to enable contactless cards processing and installation of terminals.

Cash still dominates; major banks usually do not look beyond Mobile Banking applications
While there has been an increase in the availability of cashless payment options such as using cards, via internet and using payment terminals or banking kiosks, majority of the people prefer to use cash for majority of the key occasions of payment. People prefer to get a physical receipt of cash payment which could help them in resolving potential disputes that could arise in the future. As a result, banks do not provide a wide-range of services in addition to m-banking apps. E-wallets or similar services are available only in local currency, conversion from say Rubles is unofficial, legislation barriers exist to full-scale usage of e-wallets.

The urban, relatively young affluent consumer is the target
Majority of the players we interviewed are focussing on urban, affluent customers, mainly up to 25-27 years old, who can easily use Mobile Banking services. The exception was Oschadbank, successor of former local USSR Savings Bank who is targeting the pensioners, mass market clients and salary cards project with simple sms-notification banking. Most banks are aware that the majority of population in Ukraine is still unbanked.
5.7. **MOBILE MONEY ECOSYSTEM**

- **Money Transfer and Payments market**
  - Services provided by Ukrainian Money Transfer and Payments players are as follows:
    - C2C – developed – possible between individuals through Money Transfer systems, cooperating with banks, without having banking accounts or using payment terminals;
    - C2Plastic card – service was recently launched by Unistream in cooperation with VTB bank Ukraine;
    - C2M – client can top-up mobile account using Mobile Banking or payment terminal, and from this mobile account the client can potentially make different payments, but only if the mobile account is connected to a plastic card;
    - M2C – developing – service is provided by Russian Unistream remittances operator for Russian sim-card owners only (through sending SMS with data, money will be taken from a mobile account);
    - M2M – using a mobile account within one mobile operator client (only with prepaid contract) can send some money to another mobile account.
      (Notes: C – Cash; M – Mobile)
  - Total remittances in 2011 in Ukraine were $7.02 billion:
    - 46% of which is done through bank account,
    - 40% through international payment systems, excluding transfers to non-residents,
    - 14% through informal channels.
    Inflow remittances accounted for 4.3% of GDP in 2011.
  - Remittances from Ukraine in 2011 were distributed as follows:
    - 42% of remittances were done to Russia,
    - 6% to Georgia,
    - 3% to Azerbaijan.
  - Remittances to Ukraine were done mainly from the following countries:
    - 53% were done from Russia,
    - 9% from the USA,
    - 7% from Italy,
    - 4% from Spain,
    - 2% from the UK and Portugal.
  - By July 2012 there are 23 foreign money transfer providers that provide money transfer between people without opening bank account.
including 150 Ukrainian banks, “Ukrainian financial group”, and UkrPost as participants of these payment systems.

- Undisputed leader in the remittance market of Ukraine is Western Union with 37% of the market share. However, 11 Russian remittance companies, that have 50% of the market, are competing with 5 American companies, market share of which is 47%. In 2011 Georgian company IntelExpress and Azerbaijani company Hazri entered the competition.

![Incoming remittance market share in Q3 2012](image)

**Figure**: Incoming remittance market share in Q3 2012 (courtesy: National Bank of Ukraine)

- **Mobile Payments market**

  - List of services provided by the players:
    - G2P – government of Ukraine offers little in the way of G2P/C2G e-payment platforms. Low pace of development can be explained by lack of infrastructure and low level technological education in general, as well as low level of GDP;
    - m-Commerce is developing – banks start paying attention to contactless payments development including PayPass and payWave technologies. So far, transactions with mobile phones with NFC technologies have been made, however, done with phones bought outside the Ukraine.

  - The term “electronic money” has been included in current Ukrainian legislation since second half of 2012, but so far only the banks are
permitted to make e-money emission under control of the National Bank of Ukraine, and the currency should be local one only (Hryvnia). Unofficially, payment networks/ e-wallets with other currencies (like Yandex.Money) are used, but these kinds of payments are in certain contradiction with current e-money regulation. In 2012 inspections concerning the legality of e-money in Ukraine was initiated by the fiscal police.

- According to the Central Bank statistics, in 2011 people in Ukraine bought with e-money products worth $14.3 billion, doubled from 2010. As of 1st January 2012 the total volume of issued e-money of the registered in Central bank e-money providers was $0.51 million.

- The most widespread payment networks in Ukraine are: WebMoney, Yandex.Money, Maxi (VBA bank), MoneyXy (Kontrakt bank), GlobalMoney and PayPal. The most popular e-money payment networks in Ukraine are the same as in Russia i.e. WebMoney and Yandex.Money. WebMoney is considered to be the leader in the e-money market, having 2 million active users and working in cooperation with many banks and state companies. Besides that, in January 2012 a new service of turning e-money into cash in any post office has been launched by WebMoney.

- The main direction for development is cooperation between e-money providers and banks, since firstly, banks get the balances in the accounts; secondly, banks become cash-in/cash-out agents for e-wallets, which would provide commission profits; and lastly, e-money is cheaper than remittances without opening a bank account, but it can’t be used in B2B transaction.

- The National System of Mass Electronic Payments (NSMEP), supported by the National Bank of Ukraine, contributes to the development of mobile payments in the country. They support initiatives such as the “PlatiMO!” payment system and “BANK-O-PHONE” technology.

**Key Occasions of Payment**

- The modes of payment (very similar to those in Russia) are listed in descending order of popularity
  - Majority of customers submit cash payment, they get a physical receipt of cash payment which helps them for potential disputes that may arise in the future in case of utilities. No receipts are needed for petty retail transactions such as for buying groceries.
  - Payment terminals
  - Payment via Internet
  - ATM Network
• Payment via Card account
  o The types of online payments via cards/ Internet Banking, e-money, are listed in descending order of popularity: mobile top-ups, Internet top-ups, utilities, Internet shopping.
  o Utilities
    • Utility companies have joint services with the banks
    • The service offered by "Portmone.com" is gaining in popularity. This service allows the payment of bills for utility services through Internet. Owners of mobile phones supporting WAP/GPRS and PDAs can use the mobile version of the website.

• Regulation
  o The general principles for functioning of payment systems in Ukraine are governed by the laws titled "On Banks and Banking", "On Payment Systems and Funds Transfer in Ukraine"
  o Mobile Banking is in scope of e-money regulation in Ukraine, each M-Money initiative should be approved by the NBU, but the dialogue with key players is quite active
  o MNOs cannot have licenses to provide payment services, also tax issues exists for advance payments/ converting pre-paid mobile money to Mobile Banking money
  o Need for client identification due to AML legislation is another barrier for MNOs to be an active player

5.8. NOTEWORTHY PRODUCTS:

• PrivatBank Mobile Banking products (largest privately owned retail bank in Ukraine).

Privat24 – Mobile Banking smartphone application with full functionality: sms notification, card account top-up, deposit top-up, mobile top-up, utilities payment, money transfer, card blocking etc.

SMS-banking with the following functionality: sms notification, card account top-up, mobile top-up, utilities payment, money transfer, card blocking etc.
Send Money – sending money from PrivatBank card to any card by entering card number in mobile application

PhotoCashDesk – smartphone application, one-touch make & send to Bank a picture of receipt to confirm payment

Emergency Money – possibility to receive sms-notification and withdraw from 50 to 2,000 UAH from ATM without using a card

Mini payment terminal for SME, iPay – Visa and MC acquiring via smartphones and tablets, proposed to taxi drivers, insurance agents, doctors, notaries, delivery services etc.

5.9. **EXISTING BARRIERS**

- To convince consumers to use the mobile banking services, increasing financial literacy of population
- Mobile Payment system rules are not standardised
- Security and authentication procedures not standardised
- Obtaining licenses can be a lengthy and bureaucratic process

5.10. **GAPS AND OPPORTUNITIES**

- Refer to the Opportunity Sheet for specifics

5.11. **THREATS**

- See legal barriers above
- Market is dominated by PrivatBank, as noted by all players
5.12. **HOW CAN EBRD HELP DEVELOP THE UKRAINIAN MOBILE-MONEY MARKET?**

- Refer to the Opportunity Sheets
“Ukraine”

Mobile Money Opportunity # 1: Invest in "Raiffeisen Bank Aval" Public JSC and "Aval Express” local remittances company projects (cooperation with MTS MNO is considered)

COMPANY SNAPSHOT

- Raiffeisen Bank Aval provides a broad range of standard and innovative banking services through its nationwide network which comprised of (as of year-end 2011) 909 outlets located in big cities, provincial and community centres throughout Ukraine.
- Raiffeisen Bank Aval Public Joint Stock Company was registered in March 1992 and since October 2010, it has been part of Raiffeisen Bank International AG which held 96.37% of the bank’s shares as of December 31, 2011.
- EBRD should consider supporting the bank’s dialogue with regulator (NBU) in terms of policy guidance, and afterwards invest in "Raiffeisen Bank Aval" Public JSC and “Aval Express” to help them build mobile banking and payments infrastructure.

OPPORTUNITY ANALYSIS SUMMARY

Consider supporting the dialogue with regulator (NBU) in terms of policy guidance, and afterwards investing in "Raiffeisen Bank Aval" Public JSC and “Aval Express” following projects, some of them possibly with involvement of MNO:

- Integrate “Aval Express” to Internet Banking, extend “Aval Express” functions with Mobile Banking application
- Develop/extend Internet Banking with fully-functional Mobile Banking application
- Further development of “Aval Express” payment terminals
- Development of mobile account payments together with MNO (MTS could be the partner)
- Renew existing PayPass terminals in 2012, consider/study NFC option in mid-term together with MNO (MTS could be the partner)
- Strong competitive advantages are: Ukrainian Processing Center owned by Raiffeisen Zentralbank (see UPC – [https://upc.ua/en.htm](https://upc.ua/en.htm)), a leader in processing services in Ukraine, providing services to 60+ top bank, and ownership of “Aval Express” cash transfer system

EBRD SUPPORT REQUIREMENTS

- Facilitate follow-up of dialogue with regulator (NBU) in terms of e-money, terminals, cooperation with MNOs to push existing initiatives
- Investment – parameters TBD with EBRD

KEY REGULATORY CHANGES NEEDED

- Current legislation is more or less liberalised, law on national payment system and e-money are being implemented, see “Regulation” section above for barriers

CURRENT POSITIONING IN MARKET

- Mobile Banking functionality development needed to maintain competitive position
- PayPass terminals network to be extended to increase outreach

EXISTING INITIATIVES CURRENT PAIN-POINTS

EBRD Mobile-Money Country Report January 2013
- For banked:
  - Integrate Aval Express to Internet Banking, extend Aval Express functions with Mobile Banking application
  - Develop/extend Internet Banking with fully-functional Mobile Banking application
- For unbanked:
  - Further development of Aval Express payment terminals
  - Development of mobile account payments together with MNO (MTS could be the partner)
  - Renew existing PayPass terminals in 2012, consider/study NFC option in mid-term together with MNO (MTS could be the partner)

<table>
<thead>
<tr>
<th>M-MONEY VALUE PROPOSITION</th>
<th>GO-TO-MARKET</th>
</tr>
</thead>
<tbody>
<tr>
<td>PayPass/ NFC terminals network in Ukraine</td>
<td>Early 2013 timespan for renewal of PayPass terminals</td>
</tr>
<tr>
<td>Possibility to integrate payment terminals and C2C remittances to M-Money</td>
<td>Short- to mid-term limit for other initiatives</td>
</tr>
</tbody>
</table>

**KEY BENEFITS/IMPACT**

- An opportunity to engage unbanked in the formal financial sector; risks associated with current regulation
- To reduce cost and simplify payments as well as local remittances services

**POSSIBLE CHALLENGES AND RISK**

- For the initiatives of Mobile Banking and extending “Aval Express” functions with Mobile Banking application – only economic efficiency is a challenge
- For PayPass/ NFC terminal and cooperation with MNOs- regulatory risk prevails

**KEY DEPENDENCIES**

- Keep positive dialogue with regulator

**SUGGESTED NEXT STEPS FOR EBRD**

- Short-term: facilitate dialogue with regulator (NBU) for each opportunity detected
- 2013: Closely monitor growth for NFC/PayPass project, as well as the progress projects of Mobile Money competitor – PrivatBank
- Perform extensive due-diligence process for investment consideration
### CONTACT DETAILS

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9, Leskova Street,  
Kyiv 01011, Ukraine  
Phone: (044) 490-88-88  
Email: [info@aval.ua](mailto:info@aval.ua)  
www.aval.ua

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### 5.13. **Key Organisations in the Ecosystem**

<table>
<thead>
<tr>
<th>Segments</th>
<th>Companies</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Telcos</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kyivstar</td>
<td></td>
<td>40%</td>
</tr>
<tr>
<td>MTS</td>
<td></td>
<td>35%</td>
</tr>
<tr>
<td>Beeline</td>
<td></td>
<td>3%</td>
</tr>
<tr>
<td>Life:)</td>
<td></td>
<td>21%</td>
</tr>
<tr>
<td><strong>Banks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Export-Import Bank (Ukreximbank)</td>
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<td>N/A</td>
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<tr>
<td>Savings Bank (Oschandybank)</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>Raiffeisen Bank Aval</td>
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<td>N/A</td>
</tr>
<tr>
<td>Ukrsibbank (BNP Paribus)</td>
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<td>N/A</td>
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<tr>
<td>PrivatBank</td>
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<tr>
<td><strong>3rd Party Players</strong></td>
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<td></td>
</tr>
<tr>
<td>Unistream</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>Yandex Money</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>Aval Express</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>Portmone</td>
<td></td>
<td>N/A</td>
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<tr>
<td><strong>Regulators</strong></td>
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<td></td>
</tr>
<tr>
<td>National Bank of Ukraine</td>
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</tr>
<tr>
<td>National Commission for Communications Reg. of Ukraine</td>
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<tr>
<td><strong>Consumer/Business Proxy Agencies</strong></td>
<td></td>
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</tr>
<tr>
<td>Ukrainian Chamber of Commerce</td>
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</tr>
<tr>
<td>All-Ukrainian Consumers’ Federation PULSE</td>
<td></td>
<td>N/A</td>
</tr>
</tbody>
</table>
6. COUNTRY PROFILE: TURKEY

6.1. COUNTRY SNAPSHOT

The Turkish economy continued to grow at a solid rate i.e. 8.5% in 2011. With a GDP higher than most European Union member states, Turkey is one of the most important growth markets in Europe.

The Central Bank of the Republic of Turkey (CBRT) issues bank notes and is responsible for the implementation of monetary policy. Ziraat, Isbank, Akbank, Garanti and Yapi Kredi are the top five banks out of the 48 banks operating in Turkey. Out of total deposit and development and investment banks, 31 of the banks are deposit banks, and 13 are development and investment banks. Out of deposit banks, 3 are state-owned, and 11 are private banks. The Savings Deposits Insurance Fund (SDIF) owns 1 bank. There are 16 deposit banks with foreign capital participation whose shares are owned by non-resident investors at a rate of minimum 51%. Of the development and investment banks, 3 are state-owned, 6 are private and 4 are foreign banks who are strongly encouraged by the government to open branches.

The mobile telecommunication market is largely dominated by Turkcell (55%), with Vodafone (27%) and Avea (18%) also in the mix. There are numerous MVNO players as well - Muhabet Kart, Fenercell, GSMobile, TrabzonCell, KartalCell, TTNET Mobil, BİMCell, SamsunCell, UğurCell.

AT A GLANCE

Unbanked Population
25.52m\(^8\) (51%) 

Mobile Phone Subscriptions
61.7m

Device Penetration
85%

GDP PPP Per Capita
€13,451

Total Inbound Remittances
€773m (0.15% of GDP)

eReadiness Index
4.07 (group avg 3.94)

Regulatory Index
0.38 (group avg 0.01)

Ease of Doing Business Ranking
71

8 From ‘Half the World is Unbanked’ published in Oct 2009 by Financial Access Initiative. Honohan presents estimates, of the fraction of the adult population (aged 15+) using formal financial and semi-formal (i.e., from unregulated microfinance institutions) services by combining data from banks and microfinance institutions with household surveys.
6.2. **COUNTRY OVERVIEW – IN TERMS OF BUILDING BLOCKS**

<table>
<thead>
<tr>
<th>Customer Considerations</th>
<th>Mobile Capabilities</th>
<th>Financial Services</th>
<th>Mobile Money Enablers</th>
<th>Political and Economic Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

**Customer Considerations**

Consumers in Turkey lag their global counterparts in familiarity, willingness, and frequent usage of mobile payments. However, those consumers who are familiar and willing to engage in mobile payments are ones with high incomes. In the case of point-of-sale and m-commerce payments, they are also young, typically aged 15 to 34. These metrics suggest that young consumers can take advantage of the m-money partnerships that are developing, which could propel mobile payments even deeper into the Turkish population. Turkey has a young population with an estimated average age of 29 and most of the population lives in urban areas. On the other hand, lower per capita income is a major disadvantage. Some of the young mobile customers are unemployed and dependent on their parents. As a result, some of the young customers have lower disposable income and it is more difficult to sell value-added services to them considering their low income per capita.

Turkey has a high urban population (70%) with internet penetration rate of 80% as compared to the national average of 44% of 2009. Despite relatively low internet penetration, Turkey is the third largest user of the internet within Europe and No 1. in the Middle East. The ICT adoption trend is different in the business world. More than half of Turkish companies do not use email and one fourth do not even have a Web site. Wide use of mobile devices could enhance dissemination of the information published by the government to promote exports. Increased mobile internet reach could help industrial SMEs to procure raw materials and capital goods and make payments via mobile devices - without having to invest in desktop computers.

According to a Synovate survey conducted post the financial crisis, almost 56% of respondent did not trust banks or financial institutions. However, as of June 2010, Turkey had more than 16 million internet banking users who are processing more than 400,000 financial and non-financial transactions per month. The majority of the internet banking users are inclined to use or switch to mobile banking due to its
speed and flexibility. With a share of 40% in the mobile banking market, IsBank is converting more clients to mobile banking every day. Banks like Doha Bank in Qatar are also offering smartphone banking, following Turkey’s lead.

Turkey has an adequate Consumer Protection and Know Your Customer regulation in place.

**Mobile Capabilities**

The total number of mobile phone subscribers was 61.7 million corresponding to an 85% penetration rate as of 2011. While the number of mobile subscribers and penetration rate had seen a continuously rising tendency in previous periods, this trend had stopped as of the beginning of 2009. The number of subscribers has reached the maximum of 65.8 million in 2008 with a penetration ratio of 92%. Then, it started to decrease mostly due to the flat rate campaigns of mobile operators started after Mobile Number Portability (MNP).

The ICT sector’s progress has partly been due to the privatisation of the Turkish telecommunications sector by the government, which has provided more scope for employment and attracted new foreign investment projects to Turkey. The majority of the investment in last 5 years is done to set up and expand 3G infrastructure.

3G services have been made available in Turkey since July 2009 which has seen an uptake to 19.4 million people by the end of 2010. The subscriber base increased by 100% in 2010. 1.5 million people used mobile internet with usage reaching 4.4 Terabytes by end of 2010. The leading player, Turkcell, has covered 86.97% of the entire geography of Turkey which amounts to 99.07% of entire Turkey population; it covers 100% of the settlements with a population 1000 or more (at the beginning of 2011).

As 3G usage has grown further, mobile banking usage has increased at a quicker pace among 20-35 year old cohort. According to The CEE Telco Industry Report, smartphone penetration in Turkey is 23.7%. The iPhone is the fastest growing smart phone in the Middle East with Turkey being number one on sales. Garanti bank has already increased its banking Apps for iPhones over Blackberry.

Turkey has particularly high taxation (VAT and Special Communication Tax) in the mobile sector. Turkey has the second highest tax rate on mobile use in the world after Uganda. The tax rate of about 60% results in usage levels far below the European countries. The regulation in the telecom industry is reasonably mature. Operators freely determine the tariffs, which need to be in accordance with provisions of the Tariffs Regulation of the Authority. However, inefficiencies and increased power struggles exist among key stakeholders.
Financial Services and Mobile Money Enablers

In Turkey, the financial sector is in its growth phase. During the last decade, the banking system grew more rapidly than GDP in constant prices. As a result, the ratio of banking system, including the participation banks, to GDP increased from 61% in 2002 to 94% in 2011. According to the World Bank data, the ratio of total assets to GDP is 89% on average in the emerging countries.

51% of the population in Egypt is unbanked which represents 25.5 million adults.

E-Money (Virtual) Licensing is issued by the central bank in accordance with the telco regulator. Paysafe Card and Garanti bank have the largest license in terms of transaction amounts. Major banks including Garanti and major mobile networks like Turkcell and Avea have launched initiatives focused on expanding NFC technology for mobile payments.

The number of internet banking customers increased by 29% and reached 8.6m in 2011 compared to the previous year. 91% of customers were individual customers and the remaining 9% were corporate customers. Internet banking transactions increased by 51% to EUR 667 billion in 2011. Bill payments are typically made via automatic bank transfer or at the PTT (post office).

Improving the regulatory schemes in Turkey should allow more companies to collaborate, make existing partnerships more efficient, and bring mobile payments technology to more consumers.

Political and Economic Environment

A more restrictive regulatory environment for credit kept the banks' and households' balance sheets strong. These strengths allowed Turkey to enter the global economic crisis in a stronger position than many other countries in Emerging Europe. However, Turkey's relatively high current account deficit, uncertainty related to monetary policy-making, and political turmoil within Turkey's neighbourhood leave the economy vulnerable to destabilising shifts in investor confidence. Rapid increase in the domestic demand supported the growth in line with the increase in private sector fixed capital investments and consumption demand. An aggressive privatisation programme has reduced state involvement in basic industry, banking, transport, and communication, and an emerging cadre of middle-class entrepreneurs is adding dynamism to the economy and expanding production beyond the traditional textiles and clothing sectors. Further economic and judicial reforms and prospective EU membership are expected to boost Turkey's attractiveness to foreign investors.
The business community is characterised by local family owned conglomerates. Strategic partnership is a key success factor for foreign investments. Turkey’s labour force is not cheap, but it is highly qualified and very productive. There is a pool of qualified management talent. The protection on intellectual property rights is low. However, starting a business in Turkey takes an average of six days and six procedures, compared to the OECD average of 13 days and five procedures.

Under the government’s Vision 2023 strategy, the country aims to reach 30 million broadband subscribers, supply 50% of the ICT sector with domestic products and services, increase the ICT sector’s share to 8% of GDP, provide all public services electronically by 2019, and increase computer literacy to 80% of the population.

The GDP PPP has grown by about 3.88% year-on-year from 2008 to 2011.

### 6.3. **Payments Overview**

Debit and credit cards continue to make progress

- According to the data published by the Interbank Card Center, total number of credit cards increased by 9% to 51 million by December 2011. In the same period, total number of debit cards increased by 17% and reached 82 million.
- As a result of an awareness-raising campaign to encourage usage of debit cards for shopping.
- The number of POS terminals grew by 8% in 2011 to reach the 2 million mark, and the number of domestic debit and credit card transactions performed through POS terminals as of the end of the year was 1.9 billion, a total transaction value of EUR 90.1 billion.
- In 2011, there were 32,462 ATMs, with more than half of them located at bank branches and the remaining located offsite.
- Contactless cards do not seem to motivate customers in the same way as mobile phones.

### 6.4. **Opportunity Summary for Turkey**

<table>
<thead>
<tr>
<th>Mobile Money Transfer</th>
<th>Mobile Payments</th>
<th>Mobile Banking</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Turkey’s GDP performance is outperforming post credit crisis Europe and has the fastest growing population in Europe. Financial institutions boast stronger capital adequacy requirements than their European rivals and have strategic plans to expand into western Europe through Romania, Austria and even Germany. If the existing regulatory barriers for financing the unbanked (and even for existing customers) can be overcome, Turkey presents a highly fertile environment for the growth of mobile money services.

- Mobile Money Transfer – The existence of a relatively high unbanked population means there is an opportunity for mobile money transfer – particularly in the rural areas. Moreover, Turkey is one the highest recipients of International remittances worldwide and has been so for several decades. A domestic mobile money transfer service could be developed enabling consumers to not only receive remittances on their mobiles but also enabling them to use mobile money domestically.

- Mobile Payment – If improvements can be made to the regulatory system in place, those young, affluent Turkish consumers who are interested could soon be able to take advantage of mobile payments partnerships. It will steadily replace cash in micro-payment areas such as in public transport tickets, retail etc. provided the fee structure is low.

- Mobile Banking – There is a growing young professional and SME owner cohort in Turkey which can be targeted. Turkey also has the highest demand for smartphone technology among all other countries in the middle east. While leading banks have already started introducing mobile banking as an additional channel, there is still considerable opportunity that can be tapped into.
6.5. **Secondary Indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
<th>Group Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic payments used to make payments (% age 15+)</td>
<td>11.14</td>
<td>13.69</td>
</tr>
<tr>
<td>Mobile phone used to pay bills (% age 15+)</td>
<td>4.33</td>
<td>3.73</td>
</tr>
<tr>
<td>Mobile phone used to receive money (% age 15+)</td>
<td>2.10</td>
<td>3.12</td>
</tr>
<tr>
<td>Mobile phone used to send money (% age 15+)</td>
<td>2.19</td>
<td>2.62</td>
</tr>
<tr>
<td>Point-of-sale terminals (per 100,000 adults)</td>
<td>3045.96</td>
<td>610.87</td>
</tr>
<tr>
<td>Saved any money in the past year (% age 15+)</td>
<td>9.55</td>
<td>23.56</td>
</tr>
<tr>
<td>Account at a formal financial institution (% age 15+)</td>
<td>57.60</td>
<td>45.93</td>
</tr>
<tr>
<td>Saved at a financial institution in the past year (% age 15+)</td>
<td>4.17</td>
<td>9.00</td>
</tr>
<tr>
<td>Branches, commercial banks (per 100,000 adults)</td>
<td>17.38</td>
<td>22.29</td>
</tr>
<tr>
<td>Credit card (% age 15+)</td>
<td>45.08</td>
<td>11.92</td>
</tr>
<tr>
<td>Debit card (% age 15+)</td>
<td>56.64</td>
<td>35.04</td>
</tr>
<tr>
<td>Strength of legal rights index (0=weak to 10=strong)</td>
<td>4</td>
<td>6.21</td>
</tr>
</tbody>
</table>

IN-COUNTRY FINDINGS – PHASE 2

6.6. Key Market Insights for Turkey

All major banks, telcos have entered the mobile money race
The rapid rise of the young affluent consumer has triggered off a race particularly among banks and telcos to get them to conduct financial services using mobile devices. They are using innovative technologies ranging from NFC (for Contactless payments) to native apps for smartphones (for Mobile Banking).

Banks trying to differentiate their mobile money offerings
Banks are collaborating with various entities to bring mobile money services to market
- With mobile operators (particularly Turkcell – leading mobile operator)
- With the interbank card centre (BKM)
- In-house offering creating native apps for mobile devices

The urban, affluent consumer is the target and not those lower in the pyramid
Majority of the players we interviewed are focussing on urban, affluent customers who already avail of banking services. Istanbul with a population of 12m people is a sizeable sub-market within the country. The notable exception was Garanti Bank – who is targeting the unbanked, lower income groups as well. Most banks seemed unaware of the number of unbanked/under-banked in the country.

The invasion of the smartphone
The Turkish handset market consists of a rich device portfolio including the latest handsets being launched by the key handset manufacturers i.e. Apple, Google, Samsung, Blackberry etc. Turkcell has launched the ‘T-series’ to widen access to mobile internet and mobile financial services. Smartphone penetration is increasing rapidly. For Turkcell alone, 4.8 million subscribers had a smartphone with a 70% year-on-year increase. Tablets could prove to be crucial in mobile banking growth in the urban areas as well.

Cash is still king
While there has been an increase in the availability of cashless payment options such as using cards, via internet, via mobile and using payboxes and kiosks, majority of the people particularly outside of Istanbul prefer to use cash for majority of the key occasions of payment. They prefer to get a physical receipt of cash payment which could help them in resolving potential disputes that could arise in the future. The PTT (Post office), which has about 3800 branches in Turkey,
provides numerous bill payment and money transfer options that is being widely used by the population.

6.7. **MOBILE MONEY ECOSYSTEM**

- **Money transfer and Payments market**
  - Customers can make numerous transfers/payments via offerings by banks, such as:
    - International remittance
    - Domestic remittance
    - Air-time top-up
    - Bill payment
    - Etc.
  - It takes anywhere from 1 to 10 minutes for Electronic Fund Transfer in Turkey
  - According to the Banks Association of Turkey there has been a marked increase in transactions over mobile devices
    - Number of M-Money Transfer transactions for Q2’12: 1.84m (118% increase from Q2’11)
    - Volume of M-Money Transfer transactions for Q2’12: 3.2B Turkish Lira (139% increase from Q2’11)
    - Number of M-Payment transactions for Q2’12: 732k (226% increase from Q2’11)
    - Volume of M-Payment transactions for Q2’12: 49m Turkish Lira (276% increase from Q2’11)
  - Payment systems CONTACT and Caspian Money Transfers recently announced strategic partnership in the field of money transfers. Since October 2012, the CONTACT customers are able to send money to Turkey with payment in more than 200 points of Azerbaijan system Caspian Money Transfer, operating in the country under brand Cemete Odeme Sistemleri, and send transfers from Turkey with payment in over 120,000 points of CONTACT in more than 100 countries. Thanks to cooperation with Caspian Money Transfer a network of CONTACT service offices in Turkey exceeded 1,300 points in 80 cities and towns.

- **Key Occasions of Payment**
  - Small shops i.e. ‘Bill Payment Centres’ exist
  - Majority of customers submit the bill and cash payment
  - They get a physical receipt of cash payment which helps them for potential disputes that may arise in the future
  - PTT (Post-office)
- People can make bill payments on behalf of contracted municipalities from PTT offices without paying additional charge except your bill amount.
- People can also pay bills without coming PTT workplaces from Pttmatik devices and through IPC system by our customers who have postal cheque account.
  - Electricity
    - Electricity in Turkey is supplied by many electricity companies. For example, Boğaziçi Elektrik Dağıtım A.Ş (Bosphorus Electricity Distribution Inc.) is the state-run electricity company on the European side of Istanbul while İstanbul Anadolu Yakası Elektrik Dağıtım A.Ş (Istanbul Anatolian Side Electricity Distribution Inc.) is the state-run electricity company operating on the Asian side of Istanbul.
    - Electricity bills can be paid at Bedaş/Ayedaş offices or online.
    - Bills can be paid in person using cash at most banks as well as via automatic payment procedures
  - Water
    - All municipalities provide water to their residents, and this process is managed by a national company called İSKİ.
    - Water bills are usually mailed on a bi-monthly basis.
    - Bills are generally paid at İSKİ offices as well as at the PTT (post office).
    - Bills can be paid without coming to PTT workplaces from Pttmatik devices and through IPC system by customers who have postal cheque account.
    - Bills can be paid in person in most banks along with the option of paying via automatic bank transfer
  - School Fees
    - Majority of the students go to public schools where tuition is free until college
  - Council tax
    - The average council tax in Turkey along the Mediterranean coast is between £40 and £150 per annum
    - The council tax can be paid either online, by post, by bank transfer, online, by cash or cheque.

**Mobile Wallet**
- Lots of companies trying to have mobile wallet capabilities like Turkcell
- Mikro Odeme – 3Pay working on an eco-system for virtual goods
PayPal beginning to have some local presence
Key drivers for Contactless growth
- NFC could work only if universally accepted
- All occasions of payment requiring speed present a compelling value proposition for NFC acceptance i.e. supermarkets, transportation

• Unbanked
- Over 20m unbanked people in Turkey
- Garanti is working on providing financial access to unbanked segment
- Belief is that the ‘unbanked’ population is willing to pay for certain services

• Regulation
- Mobile Banking comes under the purview of internet banking rules and regulations in Turkey.
- Revised eMoney regulation will be published by the Central Bank very soon. It will lean towards the EU regulations.
- Specific guidelines for m-money will be beneficial. It can share the essential tenets of existing eMoney/eCommerce/Internet Banking regulation.
- Regulation forces Financial Services to be backed by banks – this is a barrier for non-bank financial institutions.
- Regulatory authorities could allow BKM to play a more pivotal role in facilitating card/payment market governance, sector level policy making and rule setting.

6.8. NOTEWORTHY PRODUCTS:

• CepBank – Garanti’s P2P Money Transfer offering
  - With this application, by sending an SMS from mobile phone, one can safely send money to the mobile phone, Paracard or Paracard Trink of the desired recipient.
  - The recipient doesn't even have to have a Garanti account or credit card.
  - By using CepBank, one can perform many payment transactions such as
    - Quick Money Transfer/EFT
    - Sending Money to Mobile Phone and Credit Card
    - GSM TL Top-Up (Turkcell Prepaid, Vodafone, Avea)
- GSM TL Top-Up with credit card (Turkcell Prepaid, Avea)
- Bilyoner.com Payments
- Nesine.com Payments
- Credit Card Debt Payments
- OGS Payments
- KGS Payments
  - The transaction fee for sending money via Cep Bank is TL 1.
  - One can perform Cep Bank transactions through all mobile phones that have SMS sending and receiving feature.
  - The money sent via Cep Bank can be drawn from any Garanti Paramatik (ATM) without using a card.

**Turkcell Mobile Money Offerings**

- NFC based, multifunctional mobile wallet
- As of March 2012, Turkcell had 300,000 customers with Cep-T Cüzdan enabled NFC phones, of which 50,000 were active users of the mobile wallet service

- Enables the customers to use their credit cards with their mobile phones when using the Turkcell infrastructure
- Shopping via SMS

- Safe banking transactions compatible with most handsets
- The Cep-T Paracard is a prepaid card with MasterCard logo issued by Garanti Bank for Turkcell customers.
- Using this, money can be transferred to any operator’s mobile subscribers. Recipients can withdraw their money instantly from Garanti ATMs by simply using a secure code sent to them, without a debit card.

- Turkcell MaxiPLUS5, with an NFC featured custom-made fridge magnet, and boxed within the handsets, enables users to shop through the Mobile Order application.
- Once the user taps the fridge magnets with their device, the Mobile Order application is automatically opened up on the device, allowing them to order from all participating companies.
6.9. **EXISTING BARRIERS**

- To convince consumers to use the mobile banking services
- Mobile Payment system rules are not standardised
  - Lot of changes required
  - Fragmented market currently
  - BKM working on standardising this
- Security and authentication procedures not standardised thus complicating user-journey

6.10. **GAPS AND OPPORTUNITIES**

- There is an opportunity to automate payment mechanisms for public transportation in the cities – particularly for taxis and buses
- Consumers have numerous options for conducting mobile financial services with each option having a distinct user experience. This combined with a lack of educational messages imparted to the users creates a lot of confusion for the consumers thus resulting in lower adoption of such services
- Given that the key mobile-money players are developing products in-house and/or utilising technology services from small-scale technology companies on an independent basis, they could potentially collaborate to use a shared service model for building m-money infrastructure. This will allow them to focus on building their market value propositions and fulfilling client’s needs as opposed to being dependent on long in-house infrastructure development cycles.

6.11. **THREATS**

- Banks have sufficient capital to launch mobile money initiatives
- Consumers have enough number of options in the marketplace
- Coupons/loyalty cards could remain as value-add services only and not significant revenue drivers

6.12. **HOW CAN EBRD HELP?**

- Refer to the Opportunity Sheets
**“TURKEY”**

Mobile Money Opportunity # 1: Enable BKM to provide Mobile Money service

**COMPANY SNAPSHOT**

- The Interbank Card Centre (BKM) was established in 1990 to provide solutions for common cashless payment issues. It was also in charge for developing the rules and standards of credit and debit cards in Turkey, within the card payment realm.
- BKM currently has 17 member banks and 10 partner banks. The capital stock of the company as of March 2011 was 14 million TL.
- BKM wants to be the pioneer in the payment systems sector with the ambition of transforming Turkey into a cashless society by 2023.
- EBRD could enable BKM to provide standardised mobile-money service (including migration of digital wallet to the mobile realm) by influencing all major banks to participate in the initiative and raise capital.
- While Dr. Soner Canko, the CEO of Interbank Card Center (BKM), is widely respected in the industry, he could potentially need assistance in stakeholder management given the scale of the undertaking.

**OPPORTUNITY ANALYSIS SUMMARY**

- Enable BKM to provide standardised mobile-money service by migrating the digital wallet to the mobile realm
- Mobile Payment and Money Transfer services to be offered via Mobile Wallet.
- If all banks are willing to participate, market potential could be huge as they could potentially include the unbanked
- Number of merchants in Turkey = 1.5m (only 22k do not accept credit cards)
- Credit card transactions totalled 589k representing only a 16% increase Year-on-Year
- Mobile Payment transactions totalled 732k in Q2 ‘12, representing a 226% increase Year-on-Year

**EBRD SUPPORT REQUIREMENTS**

- Facilitating all major banks to participate
- Investment for development of mobile money infrastructure. Financial parameters to be discussed with EBRD

**KEY REGULATORY CHANGES NEEDED**

- BKM has the in-house capabilities to facilitate card/payment market governance, sector level policy making and rule setting. It will be important to get the sign-off from regulatory authorities.

**CURRENT POSITIONING IN MARKET**

- As of July 2012, BKM Express worked with cards of 9 banks including Akbank, Finansbank, Garanti Bank, ING Bank, Is Bank, TEB, Vakifbank, Yapi Kredi Bank and Ziraat Bank with capability of transacting 90% of the traffic of card payments in express platform

**EXISTING INITIATIVES**

- BKM Express is a digital wallet

**CURRENT PAIN-POINTS**

- BKM currently lacks mobile functionality
platform for all cardholders to make e-commerce purchases easier and faster.
- The users identifying their debit, credit and prepaid cards into the express platform of BKM (www.bkmexpress.com.tr) will be able to do shopping without sharing any information on e-commerce web sites

<table>
<thead>
<tr>
<th>M-MONEY VALUE PROPOSITION</th>
<th>GO-TO-MARKET</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Allow a standardised and interoperable mobile payment solution which could work independently of mobile operator or bank</td>
<td>- Timelines hard to predict as idea still in inception stage</td>
</tr>
<tr>
<td>- Mobile Wallet for performing financial services on the go.</td>
<td>- All major banks will need to co-operate with each other to make this service ‘universal’ and commercially successful</td>
</tr>
</tbody>
</table>

**KEY BENEFITS/IMPACT**
- Help BKM fulfil the promise of moving to a cashless Turkey by 2023
- Could end Turkcell’s domination and monopoly thus improving market economics
- A standardised and simple user interface could promote higher consumer adoption solving the problem of different user interfaces being offered by different players causing confusion in the minds of consumers
- BKM will strive to be the lowest cost provider of core authorization and clearing services thus allowing cost optimisation among participating banks and cost savings for the end user

**POSSIBLE CHALLENGES AND RISK**
- Getting the major banks to agree to participate as it will level the ground with non-major banks
- BKM has experienced long decision cycles due to internal politics

**KEY DEPENDENCIES**
- Agreement and sign-off from major banks on cost/revenue sharing model will form the basis
- Alignment from Turkcell on development of universal mobile-money ecosystem

**SUGGESTED NEXT STEPS FOR EBRD**
- Request BKM to provide details for the Migration of Digital Wallet to Mobile project
- Encourage BKM to create a compelling mobile-money proposition for consumers and share this vision with member banks
- Facilitate target revenue model discussion and alignment among member banks
- Evaluate BKM’s need for growth capital
### CONTACT DETAILS

**Interbank Card Center**  
Nispetiye Cad. Akmerkez E3 Blok Kat: 3 Etiler 34337  
İSTANBUL, Turkey  
Telephone: 0 212 350 79 00  
Fax: 0 212 282 12 22-23  
E-mail: bkm@bkm.com.tr
“TURKEY”

Mobile Money Opportunity # 2: Invest in Mikro Odeme(MO), primary micro-payments provider in Turkey

COMPANY SNAPSHOT

- Mikro Odeme is the first and by far the leading direct carrier billing company of Turkey having partnered with all 3 operators in Turkey i.e. Avea, Turkcell, and Vodafone.
- Founded in 2008, it has capitalised on the rapid smartphone penetration by providing merchants and consumers with micro-payment services
- Mikro Odeme is a privately owned firm based in Istanbul, Turkey.
- Zynga, the global pioneer in social gaming, is one of many merchants who has chosen Mikro Odeme as the local strategic partner and enjoys MO’s end-to-end micro transactions solution which has captured 65% of the market.
- EBRD could help MO achieve scale and potentially target Turkey’s 60 million subscriptions for micro-payments

OPPORTUNITY ANALYSIS SUMMARY

- Helping MO strengthen its capabilities and reach in Turkish Republic
- Huge market potential – Minimal mobile device requirements and partnership with all 3 mobile operators allows MO to service up to 60 million subscriptions for micro-payments
- Assisting MO to be universally accepted could speed up the ROI process
  - By negotiating with international merchants entering the Turkish market
- By encouraging domestic companies and municipalities to accept this mode of payment

EBRD SUPPORT REQUIREMENTS

| Investment for increasing scalability | Guidelines and framework for eMoney and M-Money required |
| Investment for International expansion |  |
| – Turkmenistan, Kazakhstan, Azerbaijan, Ukraine |  |
| Investment for improving marketing |  |
| Use EBRD network to connect MO with large merchants entering Turkish market |  |

KEY REGULATORY CHANGES NEEDED

CURRENT POSITIONING IN MARKET

- MO owns 65% of market share in mobile micro-payments.
- Only MO has the mobile wallet capability while not being backed by a bank
- Tapping into the payment of virtual goods market given rapid rise of social networks and online/mobile gaming

EXISTING INITIATIVES

| Offers mobile micro-payment services enabling consumers to pay via mobile phones i.e. carrier billing (pre-paid and post-paid) |  |
| Currently it provides micro-payment options on mobiles, credit cards and |  |

CURRENT PAIN-POINTS

| Consumers do not want to provide debit/credit card details online or on mobile. MO provides a safer option for consumers to conduct micro-payments |  |
debit cards accepted by 1000+ merchants for both virtual and physical goods, in online channels
- It has tied up with all 3 mobile operators for carrier billing enablement and has successfully served 4 million unique users thus far

<table>
<thead>
<tr>
<th>M-MONEY VALUE PROPOSITION</th>
<th>GO-TO-MARKET</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Could provide the means for unbanked /underbanked (including school children) with mobile phone to pay for daily occasions of micro-payment</td>
<td>- Target audience: unbanked/underbanked urban youth who are sceptical about using cards online and on mobile</td>
</tr>
<tr>
<td></td>
<td>- Improve brand equity to drive adoption</td>
</tr>
</tbody>
</table>

**KEY BENEFITS/IMPACT**

- Eliminates the need to reveal personal and credit card details during online shopping
- Alternative payment mechanism not reliant on banks – helping unbanked/under-banked

**POSSIBLE CHALLENGES AND RISK**

- Limited barriers to entry
- Consumer adoption

**KEY DEPENDENCIES**

- Dependent on telecom operators for commission (~15%)

**SUGGESTED NEXT STEPS FOR EBRD**

- Perform extensive due-diligence
- Conduct surveys to gauge consumer needs and adoption
- Conduct technology assessment of Mikro Odeme’s mobile offering
- Engage with Mediterra Capital to discuss existing financing arrangements

**CONTACT DETAILS**

Mikro Odeme
Büyükdere Caddesi No: 102 Maya Akar Center Esentepe
İstanbul, Sisli 34394 Turkey
Telephone: +90 (212) 286 27 18
Fax: +90 (212) 286 27 19
E-mail: info@mikro-odeme.com
### 6.13. Key Organisations in the Ecosystem

<table>
<thead>
<tr>
<th>Segments</th>
<th>Companies</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telcos</td>
<td>Turkcell</td>
<td>55%</td>
</tr>
<tr>
<td></td>
<td>Avea</td>
<td>18%</td>
</tr>
<tr>
<td></td>
<td>Vodafone</td>
<td>27%</td>
</tr>
<tr>
<td>Banks</td>
<td>Garanti</td>
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<td>Yapi Kredi</td>
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<td>Şekerbank</td>
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<td></td>
<td>Denizbank (Dexia)</td>
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<td>3rd Party Players</td>
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<td>Regulators</td>
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<td>Telekomunikasyon Kurumu (Telco Regulator)</td>
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<td>Consumer/Business</td>
<td>Istanbul Chamber of Commerce</td>
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<td>Proxy Agencies</td>
<td>Consumer Rights Association - Tüketici Haklarý Dernegi</td>
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</tr>
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7.

**COUNTRY PROFILE: RUSSIAN FEDERATION**

7.1. **COUNTRY SNAPSHOT**

In 2011 the Russian economy continued its recovery after the 2008-2009 crises. In 2011, as well as in the previous year, the GDP volume has increased by 4.3%. The inflation rate, compared to 2010, has significantly decreased to 6.1%.

In terms of the economic growth, the number of economically active population in 2011 went up, while level of unemployment decreased to 6.1%. Real disposable income of the population has grown by 0.8% (however the 2010 growth rate was about 5.1%). The increase in salaries and wages, a better condition of job market and a higher volume of credit provided by banks in 2011 played a significant role in a greater consumer spending rate of the population (6.8% growth).

Improvements in households’ financial standing and a higher availability of borrowed funds have contributed to the growth in investment activity in the year of 2011. Fixed capital investment volumes have risen by 8.3% (in 2010 – by 6%).

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8. From ‘Half the World is Unbanked’ published in Oct 2009 by Financial Access Initiative. Honohan presents estimates, of the fraction of the adult population (aged 15+) using formal financial and semi-formal (i.e., from unregulated microfinance institutions) services by combining data from banks and microfinance institutions with household surveys.
In 2011, the Russian banking system was characterised by volatile dynamics in major key banking indicators. The ratio of bank assets to GDP increased from 74.8% to 76.3%. However, the trend of decreasing number of valid credit institutions has remained. In 2011 large banks continued the optimisation of regional subsidiaries. In the reporting year the number of branches of credit institutions across the Russian Federation has decreased by 4.1% to 2,807.

In 2011, accompanied by dynamic development of active bank transactions, the trend of banking activity concentration has remained. The share of 200 largest credit institutions by assets in the total assets of banking sector has been growing: for the year of 2011 it increased to 94.1%. The share of 5 largest banks in assets grew from 47.7% to 54.6%: Sberbank (25.9% market share), VTB Group (17.1%), Gazprombank (5.8%), Russian Agricultural bank (3.5%) and Alfa bank (2.3%). As for the ownership, 50% of total banking assets are state-owned banks, 33% are private-owned banks and 16.9% are foreign-owned banks.

In 2011, the Russian telecommunication market increased by 4.5% and its volume reached $46bl. The market is highly concentrated, 3 main players represent 82% of the total market: MTS (32% market share), Megafone (26%) and Vimpelcom (24%).

In 2011, the number of mobile operator subscribers (working SIM-cards) in Russia increased by 9.6% to 239 million resulting in the penetration level of 166%. By 2015 telecommunication market is forecasted to rise 7.5% annually. The main driver of the growth will be the broadband and IT services development.
7.2. COUNTRY OVERVIEW – IN TERMS OF BUILDING BLOCKS

<table>
<thead>
<tr>
<th>Customer Considerations</th>
<th>Mobile Capabilities</th>
<th>Financial Services</th>
<th>Mobile Money Enablers</th>
<th>Political and Economic Environment</th>
</tr>
</thead>
<tbody>
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<td>2</td>
<td>3</td>
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</table>

Customer Considerations

Russians are considered to be relatively well-developed and highly educated people. An increasing number of people are resorting to financial services each year, thus financial activity is growing (volume of deposits have increased by 39% since 2010; volume of credits has grown by 49% since 2010 and plastic card penetration level reached 141%). All these aspects together with growing level of urbanisation open a high potential for Mobile banking development.

However, general sense of mistrust in financial industry, non-optimal level of customer rights protection and security of online banking as well as difficulty of mobile banking interface hamper fast penetration of online banking services into customers’ lives.

Mobile Capabilities

The Russian telecommunication market is highly developed and, notwithstanding high level of concentration, is relatively competitive. Players are very active in investing heavily in innovative technologies to gain a bigger market share.

Mobile phone penetration level is very high, 166%, reaching a maximum of 196% in the capital. Smartphones represent 24% of the total market share for mobile telephones. By 2015, the level of smartphone penetration is forecasted to double, which broadens the base of target users for Mobile banking services.

Regulation in the telecommunication market is relatively difficult, troubled by regulatory imperfections and high level of corruption, which could create obstacles to implement some mobile payments and money transfer services. However, the main players are partly state-owned, which simplifies the process of regulation and policy-making.
Financial Services and Mobile Money Enablers

Despite the current relatively low percentage of banked population (70%), financial services are becoming more accessible for Russian people each year.

By the end of 2011 there were 583 million opened bank accounts, which represent 4.3 accounts per person. The largest 100 banks in Russia have 34,560 branches around the country, 2.4 branches per 10,000 people. The number of different types of payment terminals reached 900k, which gives 63 terminals per 10,000 people. Besides that, people can perform some financial transactions in the post office, and in Russia there are 40% more post offices per million households than in countries with the same population density (700 offices per million people).

An increasing number of banks are launching additional platforms that enable people to make payments remotely. In this market of branchless payments e-terminal companies, classic money transfer providers and mobile operators tend to compete with traditional banks. Nevertheless people got used to paying in cash. 85% of population use cash for their payments. The majority of the salary and pension cards owners use their cards to withdraw money considering it risky to pay with a card online, while 30% of population doesn’t have an access to financial services at all. High risk of fraud due to poor enforcement base still exists.

Political and Economic Environment

Political and economic environment in the Russian Federation is relatively poor due to low level of political stability (-0.887) and political liberalisation (50.5), high level of corruption, lack of legislation in electronic and mobile payments, very long period of time and complexity to obtain any work permits, high customs and obvious imperfections of regulatory authorities. However, given it still has ‘super-power’ status and can mend its ways (domestically and internationally) to make things happen.

7.3. Payments Overview

Russia is recording high rates of growth in cashless payments for goods and services and card-to-card transfers (41% in number and 14% in value). This is largely attributable to expansion by credit institutions of a range of banking services that can be paid using payment cards, an increase in the number of card processing machines and the expansion in the functions of payment equipment.

- Payment services are becoming more accessible, an array of services to access the accounts electronically have been introduced by the banks.
Number of accounts opened by individuals and legal entities grew from 2010 by 10% to 583 million (99% out of which are individual accounts). 26% of individual accounts (17k) have internet access and 22% of all accounts (19k) have mobile access.

Payment card market in 2011 continued to develop and grow. Number of payment cards issued by credit institutions increase by 18% from 2010 to 168 million; only 8% out of them are credit cards.

In 2011 out of 200 retail banks, 52% offer SMS banking, only 27% offer mobile banking (of those 51% via a mobile web site, 45% have a JAVA application, 32% have an IPhone application, 21% an Android application and 9% Win Mobile application). However, less than 1% of the Russian population use online banking, only 9% out of which uses mobile banking.

In 2011 the number of ATMs reached 189.5k units (18% increase from 2010), 703k e-terminals, and 32 imprinters.

7.4. **OPPORTUNITY SUMMARY FOR RUSSIAN FEDERATION**

<table>
<thead>
<tr>
<th>Mobile Money Transfer</th>
<th>Mobile Payments</th>
<th>Mobile Banking</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="green" alt="Green" /></td>
<td><img src="orange" alt="Orange" /></td>
<td><img src="green" alt="Green" /></td>
</tr>
</tbody>
</table>

Banks, remittance companies, e-money providers and mobile operators are all interested in development of innovative products and are already in the stage of expanding mobile services to the population. This is an enabling environment for mobile money initiatives. However, relatively unstable political situation, large percentage of state ownership in banking system, difficult regulation in both telecommunication and banking sectors as well as lack of legislation in electronic and mobile payments could hamper the quick development in the short-term.

- **Mobile Money Transfer** – Potential to develop M2C and M2M services using a mobile account, since C2C Money Transfer market is highly developed among former USSR republics (total trans-border payment market value in 2011 is $1.8bl, 35% increase from 2010), and device penetration is high (166% in 2011).

- **Mobile Payment** – By 2012 robust mobile payment platforms are not developed either for individuals or for SMEs due to lack of technologies and
infrastructure as well as to regulation constraints; there is however medium potential to further develop NFC technologies (pilot project of SMS cards with NFC technologies has recently been launched).

- Mobile Banking – There is potential to introduce Mobile Banking to a greater number of consumers, due to an extremely large base of target users (102.6 million aged 15-64), a decreasing number of unbanked population (10% annually, in 2011 30%), an increasing level of smartphone penetration (7% yearly growth, 24% in 2011).

### 7.5. **SECONDARY INDICATORS**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
<th>Group Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic payments used to make payments (% age 15+)</td>
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<td>Mobile phone used to pay bills (% age 15+)</td>
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<td>Mobile phone used to receive money (% age 15+)</td>
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<td>Mobile phone used to send money (% age 15+)</td>
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<td>2.62</td>
</tr>
<tr>
<td>Point-of-sale terminals (per 100,000 adults)</td>
<td>275.41</td>
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<td>Saved any money in the past year (% age 15+)</td>
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<td>Account at a formal financial institution (% age 15+)</td>
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<td>Saved at a financial institution in the past year (% age 15+)</td>
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<td>Branches, commercial banks (per 100,000 adults)</td>
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<tr>
<td>Credit card (% age 15+)</td>
<td>9.68</td>
<td>11.92</td>
</tr>
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<td>Debit card (% age 15+)</td>
<td>36.96</td>
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</tr>
<tr>
<td>Strength of legal rights index (0=weak to 10=strong)</td>
<td>3</td>
<td>6.21</td>
</tr>
</tbody>
</table>

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IN-COUNTRY FINDINGS – PHASE 2

7.6. Key Market Insights for Russia

Banks together with payment schemes (MC, Visa) are enablers of mobile money offerings
Banks, payment systems, mobile network operators, e-money providers, and to some extent – remittance companies are all interested in development of innovative products and are already in the stage of expanding mobile services to the population. Banks are collaborating with payment schemes (MasterCard, Visa) to enable contactless cards processing and installation of terminals. Banks have millions of customers and existing merchant relationships so they continue to form the back-end component of any mobile-money initiatives. However, they tend to be technology laggards.

Cash still dominates; cashless payment options picking up in the capital
Mobile Banking is relatively developed in major banks; classical range of services with typical functionality is provided. While there has been an increase in the availability of cashless payment options such as using cards, via internet and using payment terminals/ PayPass or banking kiosks (particularly in Moscow), majority of the people prefer to use cash for majority of the key occasions of payment. Banks tend to be risk averse and hence are waiting for customer adoption of a particular mobile-money technology to hit critical mass. As a result, banks do not provide a wide-range of services over and above the classical range of m-banking apps.

Relatively difficult regulation in both banking and telecommunication could hamper the quick development in the short-term
Relatively unstable political situation, large percentage of state ownership in banking system, difficult regulation in both telecommunication and banking sectors as well as lack of legislation in electronic and mobile payments could hamper the quick development of mobile-money in the short-term. Mobile payments for SMEs are not developed, presenting limited potential due to regulation constraints.
7.7. Mobile Money Ecosystem

- **Money Transfer and Payments market**
  - Russia is the 3rd largest country in terms of volumes of trans-border money transfers (after USA and Saudi Arabia). Market increased by 35% and in now worth $56.3 billion (from Russia $43.8 billion, to Russia $12.4 billion). 37% of all $43.8bn money transfers from Russia were done through remittance companies. Main Russian money transfer providers are: UNIstream, Contact, Lider, Gold Crown, Migom, Anelik, and American companies MoneyGram and WesternUnion.
  - Services provided by Payments players are as follows:
    - C2C – dominant form of payment
    - C2Plastic card – in cooperation with banks;
    - C2M – client can top up mobile account, and from this mobile account make different payments;
    - M2C – developing – (through sending SMS with data, money will be taken from a mobile account);
    - M2Plastic card – from e-wallet a client can transfer money to a plastic card;
    - M2M – using a mobile account within one mobile operator client (only with prepaid contract) customer 1 can send some money to another mobile account of customer 2, who from his mobile account can make different utility payments;
    - M2M – through sending SMS client can top up his e-wallet, from e-wallet can make any payments.
      (Notes: C – Cash; M – Mobile)

- **Mobile Payments market**
  - The volume of mobile transactions done in 2011 is $0.8 billion per year, which is 0.84% of the global market value. Mobile payments market is presented mainly by two types of providers:
    - Payment networks - Yandex.Money, WebMoney – e-wallets can be used from a mobile application - in 2011 total value of e-wallets was $42 billion ($2.3 billion in 2010);
    - Payment terminals companies working in Mobile Payments segment through e-wallets - QIWI, Eleksnet, CyberPlat, i-Free, Multikassa, Quickpay.
  - Mobile Payments services provided by the players:
    - P2P – developing – (within one bank from one clients’ bank account to another client’s bank account using mobile application of a bank page);
    - G2P – not developed;
- M-Commerce – developing. E.g. mobile operator MTS first launched a SIM-card with NFC technologies enabling making mobile payments in underground, however lack of infrastructure hampering the development.

**Key Occasions of Payment**

- The modes of payment are listed in descending order of popularity
  - Majority of customers submit cash payment, they get a physical receipt of cash payment which helps them for potential disputes that may arise in the future in case of utilities. No receipts are needed for petty retail transactions such as for buying groceries.
  - Payment terminals and ATM Network: According to FOM, 43% of the Russian population uses plastic cards, and about 40% uses ATM Network to pay for services (mobile top-up, Internet top-up).
    - Payment via Internet
    - Payment via Card account
  - Emerging trend to use PayPass terminals in big cities (e.g. some petrol stations, aviaexpress in Moscow)
  - The types of online payments via cards, Internet Banking, e-money are listed in descending order of popularity: mobile top-ups, Internet top-ups, utilities, Internet shopping (particularly clothing).

**Regulation**

- MNOs are not allowed to directly obtain licenses to provide banking payment services and tend to acquire regional banks (additional details captured in the Federal Law No. 395-1 “On Banks and Banking Activities”).
- Moreover, remittance operators are also acquiring banks (or at least making general agreements with banks) to compete in this space.
- In 2011, the Federal Law No. 161-FZ “On National Payment System” was implemented. This law will govern the development and operation of payment systems and payment infrastructure. The organisational and functional requirements pertaining to this are being established.
  - Focus areas include:
    - Definition of e-payments/ e-money;
    - Definition of “electronic mean of payment”;
    - Licensing rules;
    - Definition of “direct-debit”, which is a standard service in Western countries, but not yet developed in Russia;
    - Acceptance to use mobile phone for payments;
    - Limitation for non-personalised transactions via means of payments;
    - Rules for payment terminals etc.
According to the Law, supervision of the national payment system is an activity that is undertaken by the Bank of Russia (CBR). Their role also includes regulating the activities of funds transfer operators, including electronic money operators, payment systems operators and payment infrastructure services operators (regardless of whether they are credit institutions or non-credit institutions).

- Need for client identification due to AML legislation is another barrier for MNOs to be an active player.

The Anti-Money Laundering Law:
- Lists the criteria for volume of operations subject to mandatory control;
- Lists the nature of the operations;
- Determines the occasions when organisations (conducting transactions with money or other property) need to inform an authorised agency.

- Consumer protection is low, still needs to be developed.
7.8. **NOTEWORTHY PRODUCTS:**

- **QIWI** is a leader of Russian instant payment market industry with a market share exceeding 45% and annual turnover surpassing $20bn worldwide.

  QIWI Group operates the QIWI payment services (terminals), the QIWI Wallet (e-commerce), the QIWI Advertising (advertising via payment terminals that is currently one of the top-5 media platforms by audience exposure), and the QIWI Bank.

Using self-service terminals, customers are able to make payments for mobile, internet and TV operators, utility, fines and taxes, consular dues and many others. Company provides with the following banking services: credit repayments, cash-in of cards, transfers to deposits and accounts, debt service, money transfer.

QIWI offers to the dealers a full range of hardware and software that helps them provide payment services. This includes payment terminals, POS-
terminals, payment devices and other software products and programs to receive payments.

In Q4 of 2012, QIWI opened a subsidiary in Belarus and as part of the strategic agreement, presented a co-branded product: Visa QIWI Wallet.

**Tinkoff Credit Systems (TCS) bank and Alfa-Bank** provide mobile banking applications with high functionality and promote mobile banking to the market:

- **Tinkoff Credit Systems (TCS)** is a Russian privately owned bank of the new generation with advanced IT. TCS operates a virtual, purely branchless, model. TCS’ Internet Bank named the best Internet bank in 2012 by the “Global Finance” magazine.
  
  In 2012, TCS launched Mobile Banking with full range of services, which allows managing accounts, making transfers and payments for services, and also making transfers using QR-code.

- **Alfa-Bank** is a major privately owned Russian bank with more than 200 branches in Russia and CIS, with subsidiaries in Kazakhstan, Netherlands, and the United States. Bank developing its own applications and Mobile banking segment named “Alfa Mobile”, including mobile applications for iOS, Android, Windows Phone, Symbian, etc. “Alfa Mobile” allows to make payments and transfer money between your accounts as well as to another bank or another customer of Alfa-Bank.
• **VTB24** is one of the leading state-owned retail banks on the Russian market, part of VTB Group. Local mobile banking platform provides customers with the status of accounts, cards, loans and deposits, and allows conducting a variety of operations: pay for mobile communication, Internet, utilities, transfer money to another customer of the bank or to another bank, manage deposits, find the nearest ATM, find relevant courses exchange and precious metals, and many more.

• **MNO MTS, MTS Bank** in partnership with MasterCard were the first in Russia to launch sim-cards with NFC technology for contactless payments, and now promoting PayPass and NFC technologies to the market.

• **MNO Megafon** launched a pilot project of using NFC technology for contactless payments in public transport.

7.9. **THREATS**

- Consumers have multiple options in the marketplace
- Payment terminals are taking the large share of the market from the banks including payments via mobile
- To convince consumers to use the mobile banking services, increasing financial literacy of population
- Relatively high risk of fraud due to poor enforcement base
- Mobile Payment system rules are not standardised
7.10. **GAPS AND OPPORTUNITIES**
- NFC development is a mid-term strategy (technologies are developed, but limited infrastructure availability, trend to use PayPass in big cities)
- Mobile banking for SMEs is not developed
- No representatives of M2M mobile money transfer services with the use of mobile phone account

7.11. **EXISTING BARRIERS**
- Cash culture, scepticism towards NFC payments
- Stringent regulation for banks and mobile operators

7.12. **HOW CAN EBRD HELP?**
- While several Russian players are actively pursuing opportunities to develop mobile money services, during the research no company was open to outside support or investment in any of these initiatives.
- However, companies we met are interested in participating in the on-going dialogue for the development of m-money services in the region.
### 7.13. Key Organisations in the Ecosystem

<table>
<thead>
<tr>
<th>Segments</th>
<th>Companies</th>
<th>Market Share</th>
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<tbody>
<tr>
<td><strong>Telcos</strong></td>
<td>MTS</td>
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</tr>
<tr>
<td></td>
<td>MegaFon</td>
<td>26%</td>
</tr>
<tr>
<td></td>
<td>Vimpelcom</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td>BeeLine</td>
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<tr>
<td><strong>Financial Institutions</strong></td>
<td>Sberbank</td>
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<td></td>
<td>VTB Group</td>
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<td></td>
<td>Gazprombank</td>
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<td>Russian Agricultural bank</td>
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<td>Alfa</td>
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<td></td>
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<td></td>
<td>Alliance Bank</td>
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<td>Home Credit Bank</td>
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<td></td>
<td>Contact</td>
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<td>QIWI</td>
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<td>PrivatMoney</td>
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<td>Intervale</td>
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<td><strong>Regulators</strong></td>
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<td>Federal Service for Supervision in the Sphere of Telecom, Information Technologies and Mass Communications</td>
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<td><strong>Consumer/Business Proxy Agencies</strong></td>
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<td></td>
<td>Rospotrebnadzor</td>
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</table>
8. COUNTRY PROFILE: KAZAKHSTAN

8.1. COUNTRY SNAPSHOT

In 2011 the Kazakh economy continued its recovery after the 2008-2009 crises. In 2011 the GDP growth rate reached 7.5% thanks largely to its booming energy sector but also economic reform, good harvests and increasing foreign investments. Inflation rate accounted for 7.4%.

The Kazakh banking system is represented by 38 credit institutions, 30% of which are state-owned banks (before the crisis it was 5.9%), 52% are privately-owned and 18% are foreign-owned banks. The ratio of bank assets to GDP continued to slow, reaching 51.7%, since GDP is growing at a faster pace than total banking assets.

In 2011 the share of the 5 largest banks in assets fell from 80% to 66%: Kazkommercantsbank (19.7% market share), National Bank of Kazakhstan (16.8%), BTA bank (13%), ATF Bank (8.5%), Bank CentrCredit (8%). This was mainly due to lower banking activity in comparison with the medium and small banks.

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12 From ‘Half the World is Unbanked’ published in Oct 2009 by Financial Access Initiative. Honohan presents estimates, of the fraction of the adult population (aged 15+) using formal financial and semi-formal (i.e., from unregulated microfinance institutions) services by combining data from banks and microfinance institutions with household surveys.
In general, increased demand from the population for banking services can be seen. In 2011 there was an increase in demand for credit due to the normalisation of economic conditions. At the same time, the main obstacle to increasing credit was relatively tight bank credit policy and high interest rates for loans. Thus, banks are not prepared to meet the growing demand of borrowers. In these conditions, tough prices and non-price competition for the best quality bank borrowers is growing.

The Kazakh telecommunication market in 2011 increased by 8% and its volume reached $1.91 billion (2.6% GDP). The Telecommunication sector is considered to be the fastest growing sector of the Kazakh economy. The market is highly concentrated with two leading players: 48% of the market share for GSM Kazakhstan (Tele2Sonera), 42% for Russian company Vimpelcom, the remaining two companies together have 10% of the market (MobileTelecomService and Altel).

### 8.2. Country Overview – In Terms of Building Blocks

<table>
<thead>
<tr>
<th>Customer Considerations</th>
<th>Mobile Capabilities</th>
<th>Financial Services</th>
<th>Mobile Money Enablers</th>
<th>Political and Economic Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
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</table>

### Customer Considerations

Kazakh people are considered to be relatively well-educated, and people have trust in the national banking system. Plastic card penetration reached 60%. The number of credit cards as well as the number of transactions done with plastic cards are increasing at a fast pace.

However, level of urbanisation is relatively low. 46% of the population live in rural areas and have a very low level of information and technological literacy. As of 2012, 36% of the population kept their money at home, 41% - deposits, 9% - savings for business, the rest - 14% - in shares, real estate or pension funds. The main purpose for Kazakh people to use plastic cards is for cash withdrawals from ATMs which is done by 29% of the population. 25% of card owners use their cards to receive wages and pensions, only 6% of population opened an account of their own accord. Besides that, 50% of population is sceptical about usage of mobile phones for banking services.
Mobile Capabilities

The Kazakh telecommunication market is highly concentrated and strongly regulated, but despite this, it is considered to be one of the primary sectors of Kazakh future development and thus actively invested in. The government is interested in innovations in the area of mobile payments.

Current level of development of the telecommunication sector is relatively high: 3G technology covers 90% of population, 4G will be launched in 2012 in two central cities as a pilot project, mobile phone penetration level reached 121%, only half of the population uses internet on their mobiles, and only 15.7% of population have a smartphone.

The government launched a development programme aimed at telecom liberalisation. As a result of this programme, favourable economic conditions and an effective regulatory system will be created in Kazakhstan to ensure a smooth transition to a fully competitive telecommunication market without negative consequences for the availability of telecom services to the public, state security and national competitiveness in the field of telecommunications.

Financial Services and Mobile Money Enablers

Currently, there is a relatively low percentage of banked population (49%) together with a small number of bank branches per person (1 branch per 10,000 people), common practice of paying for the utility bills in bank branches (72% of population), low percentage of people using internet or mobile banking (25% and 1.2% respectively).

However, micro-financing is relatively developed in Kazakhstan: there are 1,770 MCOs that issued 164,400 microloans totalling $255 million (25% increase from 2010).

Besides that, according to the “Kazakhstan development strategy up to 2020”, financial sector recovery is one of the key priorities, therefore sound investments will be made into the finance infrastructure and fast development of the banking sector is expected.

Political and Economic Environment

The political and economic environment in Kazakhstan is considered to be relatively high due to a relatively high level of political stability (0.463) and political liberalisation (63.6) as well as due to high GDP growth rate (7.5%) and low percentage of shadow economy (10%). Moreover, Kazakhstan ranked favourably in the “ Ease of doing business” rating in 47th place.
8.3. **PAYMENTS OVERVIEW**

Although in its recovery phase, Kazakhstan's commercial banking industry remains weak. A high proportion of non-performing loans and a shift towards domestic financing over external financing for lending operations will continue to hold back credit growth. However, despite a low level of banking stability for the foreseeable future, some positive tendencies are visible.

Remote payment services are gaining popularity and an array of services to access accounts electronically has been introduced by several banks.

In 2011 the payment card market continued to develop and grow. The number of payment cards issued by credit institutions increased by 8.4% from 2010 to 2011 and reached 9.6 million, 88.2% of which are debit cards, 10.1% credit cards, 1.6% debit cards with credit limit and 0.1% are prepaid cards. Number of credit cards is increasing at a high pace.

Over 157.4 million transactions amounting to $30 billion were transferred through the remote banking payment systems of Kazakhstan in 2011. However, 75% of all transactions were cash withdrawals, mainly through ATMs, with a total amount of $24 billion.

By 2012 about 360k customers use internet banking offered by the biggest bank of Kazakhstan - Kazcom (25% penetration rate) out of which 17k customers installed mobile banking application for their Android and IPhone (1.2% penetration rate).

For remote banking services there are almost 39k different terminals presented in Kazakhstan: 8k ATMs, 28.5k POS-terminals, 613 imprinters and 1.5k banking kiosks, which are gaining popularity due to a wide range of functionality.

Cards and cardholders are on the rise:

- Card numbers grew by 15% compared to 2009; 8.5 million cards in circulation by December 2010.
- Cardholder numbers grew by 10% to 7.9 million.
- ATM numbers up by 9% in 2009.
- POS numbers up by 12% in 2009.
8.4. OPPORTUNITY SUMMARY FOR KAZAKHSTAN

Kazakhstan is politically and economically developed compared to other countries in the region. Government and Central Bank are interested in development of innovative products for consumers. Banks are enablers for Mobile Banking market. However, there is a risk of banking sector stagnation due to the high percentage of non-performing loans and dependence on funding from abroad.

- Mobile Money Transfer – Opportunities exist in the international and domestic M2C/ C2M market (Russia, Kazakhstan, Kyrgyz Republic, Uzbekistan). There could be a specific opportunity for further development of the incoming remittance mechanism, but from Russia, given that in 2011, they accounted for 5% of Kazakhstan’s GDP. The high mobile phone penetration rate (121% of population) acts as an enabler.

- Mobile Payment - 66% of population is ready to use mobile phone as a wallet, 3G coverage is relatively high (90% of population) representing a conducive environment for further advancement in this area – given Kazakhstan’s substantially large population (in relative terms).

- Mobile Banking – Given the high usage of remote banking payment systems by the Kazakh population (see Homebank.kz example below), there is a big opportunity to enable them to avail of banking services on their mobile devices as opposed to using ATMs and other physical locations. The relatively high level of smartphones penetration (15-20%) can only enable adoption further.
### 8.5. **Secondary Indicators**

<table>
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<tr>
<th>Indicator</th>
<th>Value</th>
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<tr>
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</table>

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IN-COUNTRY FINDINGS – PHASE 2

8.6. KEY MARKET INSIGHTS FOR KAZAKHSTAN

**Banks are enablers of mobile money offerings**
Banks are collaborating with mobile operators on M-Money initiatives to market. As per the existing regulation, mobile operators are not able to provide these services independently without financial licences. The National Bank of Kazakhstan (NBK), states that all payments should be conducted via licensed banking organisations and be subject to regulation, thus: money transfer business is managed from Russia and exists in form of cooperation with banks; payment terminals business has limited functionality and is not as developed as in Russia; only banks can issue e-money, the launch of this initiative is still being discussed with NBK.

**While cash still dominates, some banks are considering PayPass technology but are still not convinced on NFC**
While there has been an increase in the availability of cashless payment options - such as using cards, via internet and using payment terminals or banking kiosks, majority of the people prefer to use cash for majority of the key occasions of payment. People prefer to get a physical receipt of cash payment which could help them in resolving potential disputes that could arise in the future. Kazkommertsbank is the bank piloting a project, in collaboration with payment systems (MasterCard, Visa), to enable PayPass cards processing and installation of terminals.

**The urban, affluent consumer is the target for “classical” Mobile Banking; rural unbanked population is currently out of scope**
Majority of the players we interviewed are focussing on urban, affluent customers, who can easily use Mobile Banking and Homebank.kz payment portal services.

**National Bank of Kazakhstan (NBK) is aiming to strictly control local banks and not liberalize remittances and e-money sector**
Legislation barriers exist to full-scale usage of e-wallet. Major banks typically provide Internet Banking and Mobile Banking applications with limited functionality only.
8.7. **MOBILE MONEY ECOSYSTEM**

- **Money Transfer market**
  
o Kazakh money transfer market is worth $3,291 billion (from Kazakhstan $3 billion, to Kazakhstan 291 million). 80% of the transfers are done physically in cash, by the working migrants. The remaining 20% are done through banks which have permission to work with the following money transfer providers, and through post offices. Market is very competitive, there are 21 Kazakh money transfer providers that are allowed to operate through the Kazakh banks or Kazakh post offices:
    - Western Union (35.3% of the market),
    - SWIFT (17.4%), Faster (11.7%), Contact (9.3%),
    - FOVA (1%), MoneyGram, Anelik, UNIstream, Coinstar Money Transfer, Leader, Fast Mail, Blizko, Blitz, Golden Crown, Migom, Metro Express, Orient Express, BS-Client, Xpress money, InterExpress, Universal Postal Union System, CiberPlat.
  
o The majority of the providers are Russian ones, based in and managed from Russia, the main operation of which is the money transfer between Russia and Kazakhstan, other CIS countries.
  
o The incoming remittance inflow numbers and percentages varied widely. According to one source, the main inflows to Kazakhstan were done from Russia (30.5%) and from Australia (26.4%). However, outflows from Kazakhstan are mainly done to Russia (37.2%), Uzbekistan (18.3%), Kyrgyzstan (8.3%).
  
o Money Transfer services provided by the key players:
    - C2C – mostly developed option;
    - C2M – client can top-up mobile account, but from this mobile account client can’t make different payments;
    - C2M – client can top-up an e-wallet, enter his e-wallet from a mobile using a mobile application and pay for different services;
    - M2C – available only from Russian Sim-card by sending an SMS, not available from Kazakh Sim-card;
    - M2M – only from e-wallet to e-wallet using mobile internet.
(Notes: C – Cash; M – Mobile)
  
o The main directions for development are making money transfer through alternative service lines – through payment terminals and internet-banking, but the regulator, the National Bank of Kazakhstan (NBK), states that all payments should be done via banking
organisations and be subject to regulation, thus payment terminals business has limited functionality and is not as developed as in Russia.

- **Mobile Payments market**
  - Electronic money was legalised in Kazakhstan in July 2011, but the correct definition of e-money in legislation is still an obstacle to development of this sector. However, foreign companies have already been active in the market for some time:
    - Payment networks - Yandex.Money, WebMoney, recently launched Etenge owned by Eksimbank Kazakhstan
    - Payment terminal companies, working in Mobile Payments segment through e-wallets - QIWI Kazakhstan, Eleksnet Kazakhstan, MCash, Cash&Pay, Multi Pay, CyberPlat. The market is highly monopolised by the Russian companies OSMP-Kazakhstan and CyberPlat-Kazakhstan that account for 2/3 of the market (inspections have been carried out by Kazakh antimonopoly authorities in 2011).
  - Mobile Payments services provided by the players
    - P2P – developing, within one bank from one clients’ bank account to another client’s using a mobile application of a bank page;
    - G2P – with the use of SMS client or smartphone application, a client can pay the bills/taxes of e-government;
    - m-Commerce – certain potential in mid-term exists, but in 2011-2012 NFC technologies did not get mass distribution due to the lack of infrastructure: absence of mobile phones with NFC technologies, low penetration of NFC/PayPass terminals, no mass culture of e-payments, non-efficient legislation.

- **Key Occasions of Payment**
  - Majority of customers submit the bill and cash payment, they prefer to get a physical receipt of cash payment which helps them for potential disputes that may arise in the future.
  - ‘Homebank.kz’ Internet banking system is rapidly gaining popularity for payments among customers.
  - **We chose ‘Utility payments’ as a proxy for other key occasions of payment.**

Utility services can be paid for in various ways:

1) **Information kiosk** - a terminal, which allows a client promptly perform the following operations.
To see detailed information about services and tariffs, to know the current balance by current account (decoding of long-distance international connections); to print personal account data, to pay for telecommunication services through cash.

2) **ATMs** of "People's Bank", "KKB", "Alliance Bank", "BTA", "Temirbank"

3) **Payment from a card account**
   - Fill out an application in any point of service or in the branch of banking partner ("Kazkommertsbank" JSC, "People's Bank" JSC); monthly the amount from customer’s’ card account will be automatically debited. Receipt of payment will be delivered to customer’s home.

4) **Payment via the Internet**

5) **Telebanking**
   Call from a landline phone. All further operations are performed by using the numeric keypad of phone in the tone mode.

6) **WAP-banking**
   For certain utility companies.

   - **Key occasions of payment/receiving information for Mobile Banking through SMS:**
     - Receive information on account balance changes
     - Receive request from the bank to confirm the operation on the account
     - Send request to the bank on state of the account
     - Send request to the bank on operations made by the bank for the period
     - Receive the request from the bank to block or unblock the card
     - Receive information from the bank on necessary operations to be made with the account, ex. credit payments.

   - **Key occasions of payment/receiving information for Mobile Banking through internet/mobile applications:**
     - receive information on statement of the accounts, accounts’ balance changes, available credit limits
     - pay utility, TV, mobile and internet bills
     - transfer money among the accounts of the client
     - block card in case of loss or theft
     - transfer money to another bank or to another account
- find the nearest ATMs, bank branches and their status of workload

**Regulation**

- Mobile Banking comes under the supervision of NBK. Payments are regulated by the Law of the Republic of Kazakhstan No 237 titled “Concerning payments and remittances”. While the key terms (e.g. “remittance”, “direct debit” etc.) are defined by the Law, any update/revision of sensible articles of current banking/e-money regulation is relatively slow, and takes on an average 1.5 years.
- Blocking points for M-Money are:
  - gaps in user identification legislation,
  - AML rules, e-money regulation,
  - NBK position on remittances/ payments (can be done only via banks),
  - lack of microfinance legal acts and initiative to provide services to unbanked population in rural areas
- Regulation forces Financial Services to be backed by banks – this is a barrier for non-bank financial institutions

**8.8. NOTEWORTHY PRODUCTS:**

- **Kazkommertsbank (KKB) Homebank.kz** Internet banking system, including Mobile Banking Application for smartphones and mobile devices. Homebank.kz was first launched in 2000 by a consortium of banks led by KKB, and year by year has been increasing functionality, now including Mobile Banking Application for smartphones. The system allows the cardholders of “Kazkommertsbank” JSC, “Citibank” JSC, “Kazinvestbank” JSC, “KazPost” JSC, “to manage private accounts (incl. balance transfers, remote deposit capture), make money transfers, perform services payments (incl. Internet, telecom, mobile, TV, utilities, G2P – taxes and fees, etc.).
• **KKB PayPass project with MasterCard and Visa.** Monitor KKB PayPass terminals expansion project in mid-term in terms of NFC technologies introduction to the market and adoption. PayPass terminals launched 2012 with MasterCard for major retailers (e.g. Ramstor), now planned with Visa. KazKom was the first bank in CIS to use plastic cards with chips. Currently KKB is the first bank in Kazakhstan to launch a pilot project with 120 PayPass/ NFC terminals in Astana and Almaty, aiming to deploy about 1000 terminals in 2013.

• KKB other initiatives, now facing obstacles due to regulation barriers, but having mid-term perspective: sms-remittances through pre-paid account or e-money (Digital Money), prepaid cards for e-wallets, e-commerce (through coupons).

8.9. **THREATS**

- Low customer base trend will remain
- Consumers have enough number of options in the marketplace
- Local banks have relatively low level of sufficient capital to launch mobile money initiatives
- NBK is aiming to strictly control the local banks and not liberalise e-money sector

8.10. **GAPS AND OPPORTUNITIES**

- Pilot the projects of Mobile Payments and Mobile Banking with high functionality
- Possibility exists to go to Russian regions markets, as well as Kyrgyz Republic
- Partnerships with key players from Russia should be considered for developing cross-border Mobile Remittances
- Additional ones captures in the Opportunity Sheet

8.11. **EXISTING BARRIERS**

- Cash culture, scepticism towards NFC payments
- Volumes, low customer base could limit commercial success for M-Money initiatives
- Qualified IT staff and pilot projects are needed to push M-Money initiatives
- Blocking points for M-Money are:
  - Gaps in user identification legislation,
  - AML rules,
- NBK position on remittances/ payments (can be done only via banks),
- Lack of microfinance legal acts and initiative to provide services to unbanked population in rural areas

8.12. **HOW CAN EBRD HELP DEVELOP THE KAZAKH MOBILE-MONEY MARKET?**

  - Refer to the Opportunity Sheet
“Kazakhstan”

Mobile Money Opportunity # 1: Invest in "Kazkommertsbank" JSC projects

COMPANY SNAPSHOT

- Kazkommertsbank is one of the largest private banks in CIS and the market leader by total assets in Kazakhstan.
- Headquartered in Almaty, the Bank serves its retail clients through a network of branches in 45 cities all over Kazakhstan under the KAZKOM logo. In addition, Kazkommertsbank has international banking subsidiaries in Kyrgyzstan, Tajikistan and the Russian Federation.
- Kazkommertsbank is in operation since 1991. It possesses one of the leading retail banking franchises in Kazakhstan with one-fifth of the retail deposit market.
- Kazkommertsbank is a public company, with a proportion of its shares, including most of the free float, listed in GDR form on the London Stock Exchange. EBRD has ~10% holding of the common shares.
- EBRD could help Kazkommertsbank achieve scalability with its mobile banking and mobile payments initiatives. Current EBRD investment: owns 9.77% of KKB common shares, financing credit lines and special programmes for SME etc.

OPPORTUNITY ANALYSIS SUMMARY

- Consider investing in KKB to enable them to further develop their mobile money initiatives such as the following:
  - Scaling up of Homebank.kz Internet banking system, including Mobile Banking Application for smartphones and mobile devices.
  - Pilot PayPass/ NFC terminals network in Kazakhstan and help them reach 1000 PayPass / NFC terminals in 2013.
  - Launch and link prepaid cards to Mobile Bank, planned for 2013.
  - Digital Money (e-money), planned for 2013.
  - E-commerce for SME, through Internet + mobile is under development.
  - E-commerce for coupon, discount etc. projects is under development.
  - P2P – projections suggest that services such as Prepaid Mobile-Money, sms remittances through prepaid account or e-money could work in rural areas. Prepaid M2M (Visa, MasterCard) could be interesting too.
  - Trans-border remittances Kazakhstan to Kyrgyz Republic, Tajikistan, Russian Federation – partner needed in Russian Federation.

EBRD SUPPORT REQUIREMENTS

- Investment – parameters TBD with EBRD.
- Organise reference visits to other countries, sharing of expertise via trainings.
- Facilitate follow-up of key regulatory changes in terms of e-money vs. current account, identification of users, AML procedures etc.

KEY REGULATORY CHANGES NEEDED

- Current legislation is more or less liberalised, laws on credit accounts and e-money are being implemented.
- 1st barrier – current account payments, requiring either paper or e-signature. E-signature is just an interim step to simplify payments.
- 2nd barrier – strict AML regulation, sometimes in contradiction with e-money development needs.
**CURRENT POSITIONING IN MARKET**

- It is the market leading private bank (by total assets) in Kazakhstan, providing a wide range of banking and other financial services to corporate and retail clients across the region
- No NFC payments and active mobile wallet in market today

**EXISTING INITIATIVES**

- KKB PayPass project with MasterCard and Visa
- Prepaid cards for e-wallets

**CURRENT PAIN-POINTS**

- Existing legislation does not allow non-banking organisations to provide remittances services; e-money issuance is not started yet; prepaid cards to start; e-wallet payments are facing AML obstacles
- Limited financial access for rural population in the low-income band

**EXISTING INITIATIVES**

- KKB PayPass project with MasterCard and Visa
- Prepaid cards for e-wallets

**M-MONEY VALUE PROPOSITION**

**GO-TO-MARKET**

- Pilot PayPass/ NFC terminals network in Kazakhstan
- E-wallet/ e-commerce for performing financial services on the go
- Continue increasing the functionality and penetration of Homebank.kz related to Mobile Banking

- 2013 for PayPass/NFC expansion, mid-term for other opportunities
- Homebank.kz is in the market for a long period, development of additional functionality related to Mobile Banking could be needed

**KEY BENEFITS/IMPACT**

- An opportunity to engage unbanked in the formal financial sector; reduced risks associated with the use of cash
- To reduce cost and simplify Government to People (G2P) payments as well as money collection services

**POSSIBLE CHALLENGES AND RISK**

- The challenge for KKB is to be the first on the market to develop Mobile Payments and Mobile Banking with high functionality
- Main risk is the low domestic customer base for Mobile Money, but possibility exists to go to Russian regions markets
- Partnerships with key players from Russia should be considered for developing cross-border Mobile Remittances

**KEY DEPENDENCIES**

- Mobile Money development is inevitable, should be the first to go to Kazakh market
- Infrastructure availability, including qualified IT staff
- Support from C-level
- Keep positive dialogue with regulator
- Partnerships and collaborations will be a key dependency that could drive success

**SUGGESTED NEXT STEPS FOR EBRD**
- Short-term: Consider organisation of expertise sharing, facilitate dialogue with regulator
- 2013: Closely monitor growth for NFC/ PayPass project, as well as Mobile Banking application uploads dynamics
- Consider conducting consumer surveys to gauge needs and adoption drivers
- Perform extensive due-diligence process for investment consideration

**CONTACT DETAILS**

<table>
<thead>
<tr>
<th>JSC Kazkommertsbank</th>
</tr>
</thead>
<tbody>
<tr>
<td>135 zh, Gagarin Ave.,</td>
</tr>
<tr>
<td>Almaty, Kazakhstan</td>
</tr>
<tr>
<td>050060</td>
</tr>
<tr>
<td>Telephone: +7 7272 585-125</td>
</tr>
<tr>
<td>Fax: +7 7272 585-242</td>
</tr>
<tr>
<td>E-mail: <a href="mailto:investor_relations@kkb.kz">investor_relations@kkb.kz</a></td>
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### 8.13. Key Organisations in the Ecosystem

<table>
<thead>
<tr>
<th>Segments</th>
<th>Companies</th>
<th>Market Share</th>
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<tr>
<td><strong>Telcos</strong></td>
<td>GSM Kazakhstan</td>
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<td>Vimpelcom</td>
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<td>MobileTelecomService</td>
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<td>Altel</td>
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<td>The Association of Microfinance Organizations of Kazakhstan</td>
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<td></td>
<td>National Bank of Kazakhstan</td>
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<td>ATF Bank</td>
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<td><strong>3rd Party Players</strong></td>
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<td><strong>Regulators</strong></td>
<td>The Central Bank of The Russian Federation (CBR)</td>
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<td></td>
<td>Rospotrebnadzor</td>
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9. COUNTRY PROFILE: KYRGYZ REPUBLIC

9.1. COUNTRY SNAPSHOT

Despite showing some signs of recovery, the Kyrgyz economy has not fully recovered from the financial crisis in 2008-2009: GDP growth reached 5.7%, but budget deficit remained at the level of $270 million (5% of GDP), 33.7% of the population is still below the poverty line and GDP per capita is very low $1,075. Progress in reconstruction, fighting corruption, restructuring domestic industry, and attracting foreign aid and investment are key to future growth.

The Kyrgyz banking system is represented by 22 credit institutions, total bank assets reached $1.33 billion (a 15.2% increase from 2010). The share of 5 largest banks by assets reached 61%: AUB (32.9% market share), ATF Bank-Kyrgyzstan (9%), KIKB (6.8%), BTA bank (6.3%), Demirbank (5.6%). Only 8% of banking assets is owned by the state.

The situation in the financial sector in 2011 was flattening: loan portfolio as well as volume and duration of the deposit base increased, while interest rates on loans continued to decrease. In 2011, the net profit of the banking system increased by more than 2.5 times.

The telecommunication market in Kyrgyzstan is represented by 3 main players: CJSC "Alfa Telecom" – known as MegaCom (50% market share), LLC Sky Mobile owned by the Russian company Vimpelcom (42%) and AkTel (the remaining 8%).

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**AT A GLANCE**

- **Unbanked Population**: 3.6m\(^{14}\) (99%)
- **Mobile Cellular Subscriptions**: 5.3m
- **Device Penetration**: 99%
- **GDP PPP Per Capita**: €1,931
- **Total Inbound Remittances**: €1311m (22.1% of GDP)
- **eReadiness Index**: 3.13 (group avg 3.94)
- **Regulatory Index**: -0.25 (group avg 0.01)
- **Ease of Doing Business Ranking**: 70

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\(^{14}\) From ‘Half the World is Unbanked’ published in Oct 2009 by Financial Access Initiative. Honohan presents estimates, of the fraction of the adult population (aged 15+) using formal financial and semi-formal (i.e., from unregulated microfinance institutions) services by combining data from banks and microfinance institutions with household surveys.
9.2. **COUNTRY OVERVIEW – IN TERMS OF BUILDING BLOCKS**

<table>
<thead>
<tr>
<th>Customer Considerations</th>
<th>Mobile Capabilities</th>
<th>Financial Services</th>
<th>Mobile Money Enablers</th>
<th>Political and Economic Environment</th>
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<tr>
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</table>

**Customer Considerations**

Education levels in Kyrgyz Republic are very low. Besides that, the level of urbanisation is very low (37%), 99% of the population is unbanked, thus the Kyrgyz nation is not even aware of advanced financial services.

**Mobile Capabilities**

The Kyrgyz telecommunication market is highly concentrated; however, private operators are relatively active in mobile and internet markets and are investing in infrastructure. Most direct foreign investment comes from Kazakhstan, China, Britain and Russia. Kyrgyzstan has one of the largest numbers of internet users per capita in Central Asia, but concentrated in urban areas. One example of an international private investment in m-money is Geopay, a mobile money transfer start-up.

Current level of development of the telecommunication sector is relatively high: 3G technology covers 90% of population, mobile phone penetration level reached 99%, while smartphone penetration rate is very low (1%).

**Financial Services and Mobile Money Enablers**

Currently in Kyrgyzstan the financial regulation index is very low. The government has no opportunity to invest in banking infrastructure; therefore the majority of rural population (63%) has minimal access to banking services with no presence of retail banks in villages. As far as Mobile Banking services are concerned, they are not developed properly, a small amount of banks provide the clients with Mobile Banking platform.

Plastic card penetration rate remains very low, but among who have cards 97% of total card transactions are cash withdrawals.

**Political and Economic Environment**

Political and economic environment in Kyrgyzstan is considered to be poor due to low level of political stability (-0.955) and high percentage of shadow economy.
(50%). Nonetheless, indicators for political liberalisation (60.2) as well for ease of doing business (70th place) are relatively higher.

9.3. PAYMENTS OVERVIEW

NBKR provided total figures for the ATM network as of 2010, when there were 280 ATMs. The figure for POS terminals was 1,615.

The ATM figure is equal to only 55 terminals per million inhabitants and expansion of the network is recognised to be essential.

As in other CIS countries, ‘cash in’ machines, or payment terminals, (often classified as POS terminals by the central banks) form an important part of the infrastructure. While the services offered differ from country to country, they may include getting information about the bank; depositing cash on a card account; card account balance enquiries; and making payments, particularly bill payments. Cash-in machines often accept dollars as well as the national currency.

- At year-end of 2010, just 225,200 payment cards were issued to a population of 5.5 million, card penetration remained low at 0.04 per capita.
- Issuance of Elkart cards began only in 2007, but by end-2010, the programme accounted for 37% of cards issued.
- 3.26 million ATM withdrawals for 2010, up almost 20% on 2009, and amounting to 97% of total card transactions.
- There were just 109,000 POS payments in 2010; moreover, ATM withdrawals have grown faster than POS payments over the past five years.

9.4. OPPORTUNITY SUMMARY FOR KYRGYZ REPUBLIC

Despite the fact that political and economic development of Kyrgyzstan is relatively poor, this country could be considered as a potential target for the development of remittance ecosystem tied to Russia and Kazakhstan.

- Mobile Money Transfer – There is an opportunity to develop the remittance channel from Russia (and Kazakhstan) to Kyrgyz Republic enabling
customers to receive funds via mobile devices. 99% of population has mobile phones, but only low-cost feature phones which should be good enough for SMS-based services.

- **Mobile Payment** – A mobile payments eco-system (Mobile P2P services or payments through SMS) could be developed over the infrastructure used for mobile money transfer services over the medium term.

- **Mobile Banking** – The population is unlikely to adopt m-banking services given the very level of social development in the country. M-money transfer services could be used as a hook to encourage population to save money received on mobiles in a bank account over the long term.

### 9.5. Secondary Indicators\(^\text{15}\)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
<th>Group Average</th>
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<tr>
<td>Electronic payments used to make payments (% age 15+)</td>
<td>0.64</td>
<td>13.69</td>
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<tr>
<td>Mobile phone used to pay bills (% age 15+)</td>
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<td>3.73</td>
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<tr>
<td>Mobile phone used to receive money (% age 15+)</td>
<td>0.84</td>
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<td>Mobile phone used to send money (% age 15+)</td>
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<td>Point-of-sale terminals (per 100,000 adults)</td>
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<td>Saved any money in the past year (% age 15+)</td>
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<td>Account at a formal financial institution (% age 15+)</td>
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<td>Saved at a financial institution in the past year (% age 15+)</td>
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<td>Branches, commercial banks (per 100,000 adults)</td>
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<td>Credit card (% age 15+)</td>
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<td>Debit card (% age 15+)</td>
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<tr>
<td>Strength of legal rights index (0=weak to 10=strong)</td>
<td>10</td>
<td>6.21</td>
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</table>

IN-COUNTRY FINDINGS – PHASE 2

9.6. KEY MARKET INSIGHTS FOR KYRGYZ REPUBLIC

Cash still dominates, majority of banks fail to provide more than sms-notifications for mobile customers
Major banks do not consider Mobile Banking (existing only in form of sms-notification) as a cheaper branchless banking solution, but as a marketing cost, aimed to attract clients to the core distribution channels – branches and bank offices.

Two initiatives are leading the way for M-Money development in Kyrgyz Republic
While KICB wants to introduce the ‘remote branch’ concept in the market with its Mobile Banking development plans, Amanbank along with GeoPay are focusing on Mobile Payments and Mobile Commerce offerings.

Key players are looking to serve unbanked population in both urban and rural areas of Kyrgyz Republic
Opportunity exists to replace cash-based Money Transfer and commerce with simple SMS/ USSD based solutions. According to the banks and 3rd party players interviewed, a real opportunity exists to use mobile channels to transfer money from Kyrgyz workers in Russia to provinces in Kyrgyz Republic and/or from commercial areas in Kyrgyz cities (e.g. Dordoy Bazaar, a large wholesale and retail market in Bishkek, one of Asia's greatest public market places) to Kyrgyz provinces by enabling consumers to load cash into mobile wallet (at Dordoy Bazaar).

Kyrgyz Republic could be used as a playground to pilot, test and expand successful M-Money projects to other CIS countries
Kyrgyz Republic could be the launch-pad for Mobile money transfer services which could expand to other CIS countries on the basis of mobile-remittance services. Ideally, such services should be interoperable, i.e. supported by all the national MNOs. The Government and the regulators should promote this initiative.
9.7. **MOBILE MONEY ECOSYSTEM**

- Mobile Banking services are not fully developed, with only a few banks providing their customers with mobile services.

- The plastic card penetration rate remains very low. Moreover, 97% of total card transactions are cash withdrawals.

**Money Transfer market**

- According to National Bank of the Kyrgyz Republic, the incoming remittances through official money transfer systems were worth $1,695.4 million in 2011.
  - 94% from Russia,
  - 2.4% from Kazakhstan,
  - 2.1% from the USA.

- Outgoing remittances through official money transfer systems from Kyrgyzstan was worth $190.1 million in 2011.
  - 97.2% to Russia,
  - 1% to USA,
  - 0.7% to Germany.

- In 2011 net remittance receipts were around 28% of GDP in the Kyrgyz Republic. Remittance inflows to Kyrgyzstan were hit hard by the deep recession in Russia in 2009, and net remittance inflows fell by 20-30% in that year (in 2009 remittance accounted for $990.3 million which is 22% of GDP). Since then, they have posted a strong recovery with remittance earnings growing at average annual rates of around 30% in 2010-11 (in 2009 remittance accounted for $1661.5 million which is 28% of GDP).

- Remittance market is quite competitive in Kyrgyzstan: Anelik, Blizko, Contact, Migom, MoneyGram, Western Union, Unistream, Gold Crown, Leader, Quick Post, Allure, Xpress Money, Privat Money, INTERexpress, and other remittances done through KyrgyzPost. The majority of the providers are managed from Russia, and their main operation is the money transfer between Russia and Kyrgyzstan. Interesting fact is that in 2010, 44% of remittances from Russia to Kyrgyzstan and 53% of remittances from Kyrgyzstan to Russia were done through Gold Crown company, managed from Russia.

- Money Transfer services provided by the players:
  - C2C – most prevalent option;
- C2M – client can top up mobile account, but from this mobile account client can’t make any payments (see the example of Amanbank and GeoPay below, aiming to break this trend);
- C2M – client can top up an e-wallet, enter his e-wallet from a mobile using a mobile application and pay for different services, but e-wallet penetration rate is only 0.06% of population and out of this 0.06% the percentage of those who do it through mobile is insignificant;
- M2C – available only from Russian sim-card by sending an SMS, not available from Kyrgyz sim-card;
- M2M – transfers from e-wallet to e-wallet using mobile application is possible, but e-wallet penetration rate is only 0.06% of population and out of this, the percentage of those who do it through mobile is insignificant.

**Mobile Payments market**

- As 2012 draws to a close, electronic money has still not been legalised in Kyrgyzstan. Payment systems are not considered as financial organisations. Internet development is not high enough to use it for payment. High social concern of paying but not receiving the goods hampers the development.

However, several foreign companies have already been acting in the market:

- Payment networks – the most popular payment systems are WebMoney, which has 3 thousand active users, and Yandex.Money, which has 400 users. Payment systems like PayPal or Moneybookers are used only by foreigners.
- Payment terminal companies – such as QIWI Kyrgyzstan, QuickPay, InterExpress. However, none of them are working in Mobile Payments segment through e-wallets.

- List of services provided by the players:
  - P2P – not developed – only sms alert is provided by some of leading banks;
  - G2P – not developed – e-government is only in development stage;
  - M-Commerce – not developed – no NFC technologies available, no infrastructure for such technologies to be implemented, but opportunity exists to develop simple solutions based on USSD technologies.
• **Key Occasions of Payment**

  o Majority of customers submit the bill and cash payment, they prefer to get a physical receipt of cash payment which helps them for potential disputes that may arise in the future.

  o Bills potentially can be paid online, through ATMs (a fee is then applied), by check, cash and by using self-service terminals located in certain banks.

Actual occasions of payment:

  o Telecom services payments and mobile top-up for all operators
  o All sort of utilities: electricity, water, rent etc.
  o Money transfer, C2C from Kyrgyz workers in Russia to Kyrgyz Republic (e.g. Osh region, Fergana Valley), from Kyrgyz cities (e.g. Dordoy Bazaar, a large wholesale and retail market in Bishkek, one of Asia's greatest public market places) to Kyrgyz provinces

Examples of payment methods:

  o Electricity (can be used as a proxy for other similar occasions of payment)

    ▪ Electricity supply in Kyrgyzstan is monopolised by OJSC "Power Plants" (ОАО «Электрические Станции») - the largest generation company in Kyrgyzstan.

    ▪ Since the summer of 2012, the country has been testing a new system of payment for electricity for urban consumers. Customers will be able to pay for electricity services with their card balances. If they run out of money on the card, the electricity supply would be stopped. This could block the possibility to steal electricity and at the same time could bring about a decrease in the number of inspectors.

    ▪ In the capital, citizens prefer to pay for electricity through the terminals for the reason that they have more opportunities to make payments this way. Currently, terminals can be found in numerous stores, shopping centres, educational and medical institutions. In smaller cities and villages, people still remain conservative as before and prefer to pay at the post office or cash departments.
o Water
  - Urban population typically pays for water in bank branches or via payment terminals.

• Regulation
  o Mobile Banking will come under the supervision of the National Bank of the Kyrgyz Republic (NBKR), but mobile banking/ e-money laws are in mid-term development perspective. NBKR is likely to study and apply the relevant rules and regulations emulating Russia.
  o EBRD can educate regulators on M-Money and how it is not the path to fraud and terrorism but the path to a cashless society
  o There is a possibility for EBRD to support overall development of M-Money by helping define best practices in e-money standards, AML rules for payment terminals, and finally M-Money standards
  o Regulatory barriers for M-Money are:
    ▪ Gaps in user identification legislation, AML rules, e-money regulation
    ▪ NBKR position on remittances/ payments (can be done only via banks),
    ▪ Lack of microfinance legal acts and initiative to provide services to unbanked population in rural areas

9.8. NOTEWORTHY PRODUCTS:

GeoPay (3rd party player) products implemented:

- Mobile Wallet with full functionality built on USSD 2 platform: Mobile money transfers across the territory of the Kyrgyz Republic, payment of mobile carrier services, cash out in bank branches, value in of GeoPay mobile wallet via Cash-In Terminal network, legal and financial framework for cooperation with the bank and partners of the system
- Customer Support with full functionality (multi-language Call Centre support with ability to run in all CIS countries)
- Service Payment functionality allows possibility of payment at cafe, restaurants, retail stores via mobile wallet
- Web-based and HTML-5 interfaces designed for customers, partners and agents of the system
Interbank Processing Center (IPC), controlled by NBKR – optional business case

- Sms-banking tool for banks, more secure and cheap compared to USSD technology
- ELCARD social cards issuance
- Remittances inside Kyrgyz Republic for population, using sms-banking

9.9. Threats

- Political instability remains high
- Low customer adoption trend could continue
- Very poor processing infrastructure, NBKR lacks resources to develop M-Money solutions

9.10. Gaps and Opportunities

- Pilot and test the projects of Mobile Payments and M-commerce using simple mobile devices, based on simple USSD technology, possibility to expand to other CIS countries
- Possibility exists to tap into Russian market with GeoPay solutions (Siberian regions are considered)
- Partnerships with key players from Russia should be considered for developing cross-border Mobile Remittances

9.11. Existing Barriers

- Cash culture, low GDP PPP Per Capita
- Volumes, low customer base could limit commercial success for M-Money initiatives
- Lack of qualified staff (including IT) and pilot projects needed to push M-Money initiatives
- High level of corruption (risk of fraud)
9.12. **How can EBRD help develop the Kyrgyz Mobile-Money market?**

- Refer to the Opportunity Sheets
“Kyrgyz Republic”

Mobile Money Opportunity # 1: Invest in the Kyrgyz Investment and Credit Bank (KICB) projects

COMPANY SNAPSHOT

- KICB was established in 2001 with the primary objective of making a contribution to the development of the economy of the Kyrgyz Republic by providing the Kyrgyz private sector with medium to long-term financing.
- KICB is the market leader in medium and long-term lending for corporate and retail clients. It wants to become the leading commercial bank in the country.
- KICB’s shareholders are international financial institutions (90% of which 17% is owned by EBRD) and the Government of the Kyrgyz Republic (10%). Its shareholders capital reached USD 26.3 m.
- KICB is actively seeking EBRD’s support for funding its mobile money projects.

OPPORTUNITY ANALYSIS SUMMARY

- EBRD to study and consider investing in KICB existing business case to enable the following initiatives (in alliance with mobile operator, possibly MegaCom):
  - Develop Mobile Banking Application - Priority 1
  - Mobile Money Transfer – Priority 2
  - M-Payments (e.g. utilities) – Priority 2
  - M-Money deposit – Priority 2
  - “Remote Branch” concept – Priority 2
  - Salary payments with mobile for rural customers
  - Considering to enter Tajikistan market if the Mobile Banking platform is successful

EBRD SUPPORT REQUIREMENTS

<table>
<thead>
<tr>
<th>EBRD SUPPORT REQUIREMENTS</th>
<th>KEY REGULATORY CHANGES NEEDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment – parameters TBD with EBRD for the business case proposed by KICB</td>
<td>User identification legislation</td>
</tr>
<tr>
<td>Identify a source to provide technical assistance to NBKR</td>
<td>AML rules, e-money regulation</td>
</tr>
<tr>
<td>Support dialogue with NBKR to provide best practices of M-Money regulatory framework</td>
<td>Banking payment terminals regulation</td>
</tr>
<tr>
<td></td>
<td>NBKR position on remittances/ payments (can be done only via banks)</td>
</tr>
<tr>
<td></td>
<td>Lack of microfinance legal acts and initiative to provide services to unbanked population in rural areas</td>
</tr>
</tbody>
</table>

CURRENT POSITIONING IN MARKET

- Kyrgyz Market leader in medium and long-term lending for corporate and retail clients
- Mobile Banking services are not fully developed, with only a few banks providing their customers with mobile services

EXISTING INITIATIVES

- KICB plans to select Mobile Banking platform and invest, step by step, in M-Money initiatives starting 2013: Mobile

CURRENT PAIN-POINTS

- Cash culture of population prevails
- KICB has limited branch network coverage in Kyrgyz Republic
Money Transfer, M-Payments (e.g. utilities), M-Money deposit, “Remote Branch” concept, salary payments with mobile for rural customers
- Considering entry into Tajikistan market if the Mobile Banking platform is successful

- Existing legislation underdeveloped
- Limited financial access for rural population in the low-income band

<table>
<thead>
<tr>
<th>M-MONEY VALUE PROPOSITION</th>
<th>GO-TO-MARKET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refer to existing Mobile Banking Business Plan approved by KICB Board.</td>
<td>2013 for selection of Mobile Banking platform and then invest, step by step, in initiatives mentioned above</td>
</tr>
<tr>
<td></td>
<td>Considering to enter Tajikistan market if the Mobile Banking platform is successful</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>KEY BENEFITS/IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>An opportunity to engage unbanked in the formal financial sector; reduced risks associated with the use of cash</td>
</tr>
<tr>
<td>To reduce cost and simplify payments</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POSSIBLE CHALLENGES AND RISK</th>
<th>KEY DEPENDENCIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>The challenge for KICB is to be the first on the market to develop Mobile Payments and Mobile Banking with high functionality</td>
<td></td>
</tr>
<tr>
<td>Main risk is the low domestic customer base for Mobile Money</td>
<td></td>
</tr>
<tr>
<td>Positive macro-economic environment</td>
<td></td>
</tr>
<tr>
<td>Availability of infrastructure including qualified IT staff</td>
<td></td>
</tr>
<tr>
<td>Positive dialogue with regulator</td>
<td></td>
</tr>
<tr>
<td>Partnerships and collaborations will be a key dependency that could drive success</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUGGESTED NEXT STEPS FOR EBRD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform due-diligence process for investment consideration of existing business case</td>
</tr>
<tr>
<td>Discuss investment parameters and requirements with KICB</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CONTACT DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>KICB</td>
</tr>
<tr>
<td>21 Erkindik blvd., Bishkek, Kyrgyz Republic</td>
</tr>
<tr>
<td>Telephone: (+996 312) 620 101</td>
</tr>
<tr>
<td>Fax: (+996 312) 620 202</td>
</tr>
<tr>
<td>E-mail: <a href="mailto:kicb@kicb.net">kicb@kicb.net</a></td>
</tr>
</tbody>
</table>
“Kyrgyz Republic”

Mobile Money Opportunity # 2: Invest in the M-Payments and M-Commerce projects proposed by the alliance of GeoPay and Amanbank

COMPANY SNAPSHOT

- GeoPay, launched in 2011, is a privately held corporation headquartered in Reston, Virginia (USA). Owned by founders and employees along with some private funding entities.
- It provides a Mobile Money Transfer service in Kyrgyz Republic since August 2012 that enables consumers to exchange value in the form of cash, top-up, m-commerce and bill payment.
- GeoPay provides instantaneous financial settlement services to its network of interconnected mobile carriers customers using SMS and USSD based technology.
- GeoPay is located on over 150 kiosks throughout Kyrgyz Republic, is accepted at 70 retail banking locations and has access to over 500,000 mobile subscribers
- It has 12 employees in Bishkek (Tech/Sales and Marketing)
- GeoPay independently requires single digit millions (in USD) in a round of funding later this year or early next year for scaling up its activity in the region.

OPPORTUNITY ANALYSIS SUMMARY

In the medium-term, GeoPay is looking to focus on the following short-term initiatives along with its partners:

- Cross-border payments by international money transfers from Russia, very important segment of trans-border and city-rural area remittances cash-to-mobile
- Micro M-payments, Bill-Payment service full functionality, including utilities, internet, tax payments, transfers and other services
- Distribution of micro-credits and integration of mobile wallet to a bank account: sms-enabled m-payments and m-banking for unbanked SME/ grocery stores, crediting via mobile
- Additional and related products with motivational and social orientation (bonus system for partners, Student Card, program contributing to the promotion of financial and banking products in the country, etc.)
- Establishment of mobile payment system association with the participation of banks and financial institutions for the further development of this particular business

EBRD SUPPORT REQUIREMENTS

<table>
<thead>
<tr>
<th>EBRD SUPPORT REQUIREMENTS</th>
<th>KEY REGULATORY CHANGES NEEDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment – parameters TBD with EBRD for the business case proposed by GeoPay-Amanbank</td>
<td>User identification legislation</td>
</tr>
<tr>
<td>GeoPay independently requires single digit millions (in USD) in a round of funding later this year or early next year.</td>
<td>AML rules, e-money regulation</td>
</tr>
<tr>
<td>Need $10m + for next phases to extend region of operation (not yet incorporated into Russia, could consider expanding to Western Siberia tapping the remittance</td>
<td>Existing legislation underdeveloped in terms of mobile wallet</td>
</tr>
<tr>
<td></td>
<td>Lack of microfinance legal acts and initiative to provide services to unbanked population in rural areas</td>
</tr>
<tr>
<td></td>
<td>Educating regulators on M-Money and how it is not the path to fraud and terrorism but the path to a cashless society</td>
</tr>
<tr>
<td>corridor into Kyrgyz Republic, spend on marketing</td>
<td>Lack of equipment to implement, invest in payment terminals</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>• Support dialogue with NBKR with best practices of M-Money regulatory framework</td>
<td></td>
</tr>
<tr>
<td>• Share success stories from Kenya and other developing countries</td>
<td></td>
</tr>
</tbody>
</table>

### CURRENT POSITIONING IN MARKET

- It provides customers with easy mobile banking solutions in alliance with Kyrgyz banks (Amanbank)
- Consumers primarily use cash. However, opportunity exists to convert cash-based money transfer and commerce into mobile-money

### EXISTING INITIATIVES

GeoPay has implemented the following solutions and products in the territory of the Kyrgyz Republic:

- **Mobile Wallet with full functionality built on USSD 2 platform:** Mobile money transfers across the territory of the Kyrgyz Republic, payment of mobile carrier services, cash out in bank branches, value in of GeoPay mobile wallet via Cash-In Terminal network, legal and financial framework for cooperation with the bank and partners of the system
- **Customer Support with full functionality** (multi-language Call Centre support with ability to run in all CIS countries)
- **Service Payment functionality** allows possibility of payment at cafe, restaurants, retail stores via mobile wallet
- **Web-based and HTML-5 interfaces designed for customers, partners and agents**

### CURRENT PAIN-POINTS

- **Amanbank** is a medium-size bank with limited access to capital
- **Existing legislation** underdeveloped (for mobile wallet services)
- **Limited financial access** for rural population in the low-income band

### M-MONEY VALUE PROPOSITION

- Primary business strategy is to be interoperable with institutions interested in M-Money
- Wider acceptance avenues could reflect into higher customer adoption

### GO-TO-MARKET

- Will be co-marketing and co-branding with partners
- Predicting consumer responses will be a large part
- Extending merchant/agent network
<table>
<thead>
<tr>
<th><strong>Looking to partner with organisations having relationships with merchants</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Vimpelcom, Gazprom, Kyrgyz Bank, Demir Bank etc.</td>
</tr>
<tr>
<td><strong>Remittance might be a good first step</strong></td>
</tr>
<tr>
<td><strong>GeoPay is extensible for G2P payments</strong></td>
</tr>
<tr>
<td><strong>Currently speaking to USAID (approved for advocacy in US Dept. of Commerce)</strong></td>
</tr>
<tr>
<td><strong>Continue to speak with local market players</strong></td>
</tr>
</tbody>
</table>

### KEY BENEFITS/IMPACT

- An opportunity to engage unbanked in the formal financial sector; reduced risks associated with the use of cash
- To reduce cost and simplify payments

### POSSIBLE CHALLENGES AND RISK

- Main risk is the low domestic customer base for Mobile Money, but possibility exists to go to other regional markets
- Educating consumers – currently GeoPay not spending on marketing
- Geo-political stability is an on-going risk

### KEY DEPENDENCIES

- Partnerships and collaborations with banks and merchants will be a key dependency that will drive success
- Positive macro-economic environment
- Availability of infrastructure including qualified IT staff
- Positive dialogue with regulator

### SUGGESTED NEXT STEPS FOR EBRD

- Perform due-diligence process for investment consideration of existing business case
- Share with GeoPay and Amanbank with investment parameters and requirements

### CONTACT DETAILS

**GeoPay**
11150 Sunset Hills Road
Reston, VA United States
E-mail: info@geopayinc.com
### 9.13. **Key Organisations in the Ecosystem**

<table>
<thead>
<tr>
<th>Segments</th>
<th>Companies</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Telcos</strong></td>
<td>CJSC &quot;Alfa Telecom&quot; – known as MegaCom</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Vimpelcom (Sky Mobile)</td>
<td>42%</td>
</tr>
<tr>
<td></td>
<td>Aktel</td>
<td>8%</td>
</tr>
<tr>
<td><strong>Financial Institutions</strong></td>
<td>Asia Universal Bank (AUB)</td>
<td>32.9%</td>
</tr>
<tr>
<td></td>
<td>ATF Bank-Kyrgyzstan</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>KIKB</td>
<td>6.8%</td>
</tr>
<tr>
<td></td>
<td>BTA bank</td>
<td>6.3%</td>
</tr>
<tr>
<td></td>
<td>Demirbank</td>
<td>5.6%</td>
</tr>
<tr>
<td></td>
<td>Halyk Bank</td>
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<td></td>
<td>OJSC &quot;Commercial Bank Kyrgyzstan&quot;</td>
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</tr>
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<td></td>
<td>KICB</td>
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<td></td>
<td>Unicredit</td>
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</tr>
<tr>
<td><strong>3rd Party Players</strong></td>
<td>GeoPay</td>
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<tr>
<td></td>
<td>Intervale</td>
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<tr>
<td></td>
<td>Anelik</td>
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<tr>
<td></td>
<td>Unistream</td>
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<td></td>
<td>Gold Crown</td>
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<tr>
<td></td>
<td>Kyrtelsat</td>
<td>N/A</td>
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<tr>
<td><strong>Regulators</strong></td>
<td>The National Bank of the Kyrgyz Republic</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>National Agency for Information Resources,</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Technologies and Communication</td>
<td></td>
</tr>
<tr>
<td><strong>Consumer/Business Proxy Agencies</strong></td>
<td>Chamber of Commerce of Kyrgyzstan</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Center for Public Policy, Bishkek, Kyrgyzstan</td>
<td>N/A</td>
</tr>
</tbody>
</table>
10. POTENTIAL NEXT STEPS WITH INTERESTED ENTITIES

The ‘Suggested Next Steps’ for each opportunity have been shared in the Opportunity Sheets for the individual countries. Most companies that we interviewed were not willing to share critical company information (without NDAs) necessary for performing comprehensive due diligence prior to investment.

We suggest that EBRD requests the following pieces of information from the entities it short-lists for the purpose of investment/assistance:

1. Company Mission
   - Define the company’s Mobile-Money mission in a single declarative sentence.

2. Problem definition
   - Describe the pain-points of the customer (or the customer’s customer)
   - Outline how the customer addresses the issue today

3. Mobile-Money Solution
   - Demonstrate your company’s value proposition to make the customer’s life better i.e. financial inclusion, improved access, cost-savings etc.
   - Show where your product/service fits into existing market offerings
   - Provide use cases

4. Why Now?
   - Describe the evolution of your market
   - State recent trends that could justify customer uptake for commercial viability of proposed initiative

5. Market Size
   - Identify/profile the customer segment that you will cater to
   - Projections based on:
     - Total Addressable Market (top down)
     - Served Available Market (bottom-up)
• Serviceable and Obtainable Market (provide customer survey results, if applicable)

6. Competition
• List competitors
• List competitive advantages

7. Product/Service
• Product line-up (features, functionality, architecture, intellectual property)
• Development roadmap – in-house, out-sourced + time-lines

8. Business Model
• Revenue model – with projections
• Pricing
• Average account size and/or lifetime value
• Sales & distribution model
• Partners – existing, potential
• Key customer/pipeline list, if applicable

9. Team
• Founders & Management
• Board of Directors/Board of Advisors
• Brief company history

10. Financials
• P&L
• Balance sheet
• Cash flow
• Cap table
• Financial requirements from EBRD
11. APPENDIX

Key Occasions of Payment

11.1. TURKEY

Electrical Power

Electricity in Turkey is supplied by many electricity companies. For example, Boğaziçi Elektrik Dağıtım A.Ş (Bosphorus Electricity Distribution Inc.) is the state-run electricity company on the European side of Istanbul.

- Electricity bills can be paid at Bedaş offices or online.
- Bills can be paid in person at the following banks: Albaraka Turk, Alternatifbank, Anadolubank, Asya Katilim Bank, Halk Bank, Kuveyt Turk, Şekerbank, Tekfenbank, Tekstilbank, Turkishbank, TEB, Vakıfbank or Ziraatbank.
- Alternatively, they can be paid via automatic payment at these banks: Akbank, Denizbank, Finansbank, Fortisbank, Garanti Bank, HSCB Bank, Is Bank, oyakbank, Yapı ve Kredi Bank and Türkiye Finans Katilim Bank.

İstanbul Anadolu Yakası Elektrik Dağıtım A.Ş (Istanbul Anatolian Side Electricity Distribution Inc.) is the state-run electricity company operating on the Asian side of Istanbul.

- Electricity bills can be paid at an Ayedas offices or online.
- Bills can be paid in person at the following banks: Albaraka Turk, Alternatifbank, Anadolubank, Asya Katilim Bank, Halk Bank, Kuveyt Turk, Şekerbank, Tekfenbank, Tekstilbank, Turkishbank, TEB, Vakıfbank and Ziraatbank.
- Alternatively, they can be paid via automatic payment at these banks: Akbank, Denizbank, Finansbank, Fortisbank, Garanti Bank, HSCB Bank, Is Bank, oyakbank, Yapı ve Kredi Bank and Türkiye Finans Katilim Bank.
Water

All municipalities provide water to their residents, and this process is managed by a national company called ISKI.

- Water bills are usually mailed on a bi-monthly basis.
- Bills can be paid at ISKİ offices.
- Bills can be paid at the PTT (post office).
- Bills can be paid without coming to PTT workplaces from Pttmatik devices and through IPC system by customers who have postal cheque account.
- Bills can be paid in person at the following banks: Vakıfbank, Halk Bank, Alternatif Bank, Denizbank, Tekstilbank, Anadolu Finans, Albaraka, Kuveyt Türk, Bayındır Bank, Asya Finans, Anadolu Bankası, Tekfenbank and Oyakbank.
- Alternatively, they can be paid via automatic bank transfer at these banks: Akbank, Dışbank, Finansbank, Garanti Bank, İş Bank, Pamukbank, Türk Ekonomi Bankası (TEB), Yapı Kredi Bank and Koçbank.

Tuition fees

Public schools are free until college.

Council tax

The average council tax in Turkey along the Mediterranean coast is between £40 and £150 per annum. The council tax can be paid either online, by post, by bank transfer, online, by cash or check.

Gas

If the home is located in Istanbul or Ankara Turkish have access to gas providers’ İGDAŞ and EGO. Almost anywhere else, they have to buy bottled gas from local distributors.

Market size
**Monthly electric bill** is on average 80YTL which is around 35 pounds. Constant use of air conditioning can see it rise to as much as 150 pounds. Say the average is 80. **Monthly water bill** is around 20YTL which is 8 pounds. **A Gas** bottle will last six months and one bottle is approximately 20 pounds when only used for the cooker. So above 3.5 per month. **Property and council tax** will vary depending on the value of property and the town that have bought property in. Budget approximately 50 to 100 pounds. Say the average is 70. **17.8 million households.**

Utilities market = (80+8+3.5+70) x 12 x 17.8 million = £34.49 billion per year.

**Sources**

http://www.studyinturkey.net/life-in-turkey/fees-and-expenses
http://www.avcilar.bel.tr/e_Belediye.aspx?sayfano=1&mno=4
http://turkishpropertysite.com/annual-running-costs-of-a-turkish-property
http://www.bmcetrade.com/fr/observer-les-pays/turquie/approcher-consommateurs
11.2. ROMANIA

Electricity

Customer can pay utilities bills in Romania in various ways. For most of them customer will need to have the actual paper invoice. But most of them can also be paid via bank transfer – provided customer have all the needed details on bill – client code and invoice number.

- In cash at most banks.
- In cash, at PayPoint locations - ro-en.paypoint.com
- In cash, at Unikasa pay points: Eni gas stations
- Online, through bank account
- Online, by card, on the service providers’ website is they offer this option
- By card, at various banks’ ATMs

Many bills also have barcodes that can be used at ATM or bank branches.

In Bucharest, the company that provides and distributes electricity is called Enel-the former state-owned Electrica Muntenia.

- An example for electricity bills payment: Electrica furnizare
  1. Customers can pay with cash or card at all Electrica’s pay-desks (0% commission).
  2. In stores where they can find PayPoint, PayZone or Westaco stamps (0% commission). They can only pay cash by presenting the bar code on their invoice.
  3. For direct debit payment they need to conclude a debit contract and so the bank to pay the invoice till due.

Water

Apa Nova Bucuresti offers several ways, out of which customers may choose the most convenient one:

ATM
The service is available 24/7, in the extensive network of BCR and BRD ATMs in
Bucharest. Customers must be the holder of a BCR or BRD card and must have concluded an agreement with the bank for the payment of the water and/or sewerage invoices.

**At BRD units**
Customers may pay in cash or by intra-bank transfer (if they are already a BRD customer) and by inter-bank transfer (if customer of another bank) at any BRD unit.

**At ROBO BRD**
They may pay in cash or by BRD card at the ROBO ATMs units located in the BRD units. The invoice is required for reading the barcode.

**At the Post Office**
The invoice payment is made in cash. The transaction is fast, convenient and safe, by scanning the barcode on the invoice.

**At the approved traders**
Customers may pay in cash at the UNIKASA counters within AGIP petrol stations 24/7. They may pay in cash or by BRD card at the P.O.S. installed at the approved traders featuring the SIMPLIS FACTURI or PayPoint sign.

**By automatic settlement (SIMPLIS DEBIT)**
The service is available in the network of BRD units. Customers fill out a Direct Debit order and make sure they have the amount available in their account by the due date of the invoice.

**At the P.O.S. of the pay desk at the headquarters of Apa Nova Bucuresti**
This service is available for national or international VISA, EUROCARD and MASTERCARD cardholders. Cash payment (the maximum payment ceiling is RON 5,000) may be made at the pay desk located on the ground floor of the headquarters of Apa Nova Bucuresti in 2 Aristide Demetriade St., sector 1, between the hours of 8:00 and 18:00 (Monday - Friday) and 9:00 and 13:00 (Saturday).

**Gas**

EBRD Mobile-Money Country Report January 2013
GDF Suez Energy Romania (Suez Gas) is the only gas supplier in Bucharest. **E.ON Gaz Romania** is a Romanian supply company in the gas industry, specialising in natural gas supply. **Transgaz** is a state-owned company, which is the technical operator of the national natural gas transmission system in Romania.

**How to pay gas bill directly:**

**Direct debit**
This is a free service offered by GDF SUEZ Energy Romania for account holders at Bancpost, BCR, BRD Groupe Générale, CEC BANK, ING Bank, Raiffeisen Bank, MKB Romexterra Bank, Transilvania Bank, and UniCredit Tiriac Bank.

**Bank transfer**
Customers can pay their GDF SUEZ Energy bill from any bank account with their client code, which they can find on their invoice (‘cod client’).

**Bank Card**
Customers can use their bank card to pay many bills (including gas) at any ATM from BCR, BRD Groupe Générale, and ING Bank in the country.

**Cash payments**
Customers can make a cash payment at all the agencies and partners of BRD Groupe Générale; agencies of Transilvania Bank, CEC BANK, Bancpost; ATMs from Citibank Europe; and GDF SUEZ Energy Romania pay boxes.

**Tuition fees**

Public schools are free until University.

**Taxes**

Taxes can be paid in local county administration offices, in 145 corners or online in 52 cities. It appears that the majority pays in cheque or cash. **€16 million taxes paid by credit card in 2011. The Romanian government is trying to support card payments.**
Market size

About 130 € of utility bills per month (excluding council tax). 8.5 million Households.

Utilities market = 130x12x8.5 million = €13.26 billion per year.

Sources
http://www.electricafurnizaretn.ro/en/USEFULCustomers-information/Frequent-questions.html
http://www.globalpropertyguide.com/Europe/Romania/Taxes-and-Costs
11.3. UKRAINE

The number of payers for communal services through the ICC of PJSC "MEGABANK" was 1 million 971 thousand 289 people on 1 January 2011. Database of payers for 2010 has increased by 125 thousand 470 personal accounts.

Over the past year 8 million 650 thousand 224 receipts for payment of communal services were processed (by 210 thousand more than in 2009). Among all the payments made in the system of ICC 10 609 were done using the Internet. This is 2.3 times more than in 2009. Through electronic terminals "m-boxes" users carried out 5,816 payments. In the ICC noted that number of payments made through the Internet and terminals increased but they stressed that it is not as rapidly as we would like.

As the Head of ICC Yuriy Sergeyev said, the work to expand the number of payers of ICC has been conducted in Kharkov, Lvov, Poltava and other cities in 2010. The system of ICC was introduced in Borispol (Kiev region). The number of services that can be paid on a single receipts rose to 63. In the plans of this year is the further spread of technology of ICC in Ukraine.

Yuriy Sergeyev noted that many payers are asking questions relating to the cancellation of the moratorium on the imposition of a fine for the debt on utility bills. According to him, the Cabinet of Ministers has not yet determined the mechanism for recovery of fines and in the ICC waiting for clarifications to make changes to the software and the scheme for accepting of utility payments.

Reference. The ICC of "MEGABANK" PJSC is a bank product to pay for housing and communal services, which is developed and implemented in Kharkov, Kirovograd, Poltava, Chernigov, Cherkassy, Novaya Kakhovka in Kherson region, Lviv, Donetsk, and Borispol. Work is underway to implement technology ICC in Simferopol and Feodosia (Crimea). Through the system of ICC of "MEGABANK" PJSC more than 12% of all of payers in Ukraine pay for utility bills. The ICC was awarded the All-Ukrainian competition-exhibition "The best domestic product" in the category "Banking, insurance, financial services" and also received a diploma on the International exhibition "15 Years of the CIS. Cooperation and Integration."
Example of online payment platform

![IPay.ua interface](image)

**Market size**

About $70 of utility bills per month (excluding council tax). 17.2 million Households.

**Utilities market = 70x12x17.2 million = $14.4 billion per year.**

**Sources**

http://www.ipay.ua/en/bills/
http://www.numbeo.com/cost-of-living/country_result.jsp?country=Ukraine
11.4. **GEORGIA**

**Free payments enabled – An example**
Georgian consumers can pay their communal service bills free of charge starting October 1, 2010 at 25 outlets of Liberty Bank, one of the leading Georgian banks.

**Payments in post offices**
Effective May, 2008. Public utility payments are available in 44 Georgian Post Offices throughout the country, with Ingenico multilane terminals. With upgraded software, to support the Public utility payments together with other financial operations.

**Market size**
Above $75 of utility bills per month (excluding council tax). 1.2 million households.

**Utilities market = 75x12x1.2 million = $1 billion per year.**

**Sources**
http://bankofgeorgia.ge/express/en/payments/ipay
http://bankofgeorgia.ge/express/en/payments/ibank
http://www.numbeo.com/cost-of-living/country_result.jsp?country=Georgia
11.5. Kazakhstan

Utility payments

Payment for utility services can be performed in various ways:

1) Information kiosk - a terminal, which allows a client promptly perform the following operations
To see detailed information about services and tariffs, to know the current balance by current account (decoding of long-distance international connections); to print personal account data, to pay for telecommunication services through cash.

2) ATM of "People's Bank", "KKB", "Alliance Bank", "BTA", "Temirbank":

3) Payment from a card account
- fill out an application in any point of service or in the branch of banking partner ("Kazkommertsbank" JSC, "People's Bank" JSC); monthly the amount from customer’s’ card account will be automatically debited. Receipt of payment will be delivered to customer’s home.

4) Payment via the Internet

5) Telebanking
Call from a landline phone. All further operations are performed by using the numeric keypad of phone in the tone mode.

6) WAP-banking
For certain utility companies.

Market size
About $90 of utility bills per month (excluding council tax). 4.1 million Households. Utilities market = 90x12x4.1 million = $4.4 billion per year.

Sources
http://bta.kz/en/personal/payment/
11.6. Kyrgyzstan

Bills can be paid online, through ATMs (a fee is then applied), by check, cash and by using self-service terminal located in certain banks.

**NBP Bank in Kyrgyzstan**
The bank presents following services of utility payments through ATMs: Heating and hot water (Bishkekteploset); Electricity (Severelectro);

**KICB Bank**
Customer can pay online for: BishkekEnergosbyt" (for electricity), "BishkektEploenergy" (for heat and hot water), "Bishkekteploset" (for heat and hot water), "BishkekGas" and "KyrgyzLift".

**Unicredit Bank**
Customer can pay for heating and hot water supply ("Bishkekteploset"); Heating and hot water supply ("Bishkekteploenergo"); Cold water and flows ("Bishkekvodokanal"); Gas ("Bishkekgas"); Electricity ("Severelectro"); Garbage disposal; (Plastic card holders of OJSC “UniCredit Bank” can pay for the services of mobile operator "Beeline” through ATMs of the Bank).

There is no commission for these utilities payments, except for ALA-TV services payments (commission is 10 soms).

**Tuition fees**

**American University of Central Asia**
Fees can be paid by direct cash payment to the University cashier's office, by money transfer thought MoneyGram or Western Union, or by wire transfer to the University account

**Report from US Aid**
“The property tax in Kyrgyzstan can certainly be automated following the plan outlined in the action plan below. The administration not only can be automated, but for long term success of the property tax it must be automated. The current paper system is extremely onerous for the taxpayer.”
Market size

About $37.5 of utility bills per month (excluding council tax). 1.1 million Households.

Utilities market = 37.5x12x1.1 million = $495 million per year.

Sources
http://en.kicb.net/products_and_services_private/utility
http://www.btabank.kg/en/atmlist
http://www.numbeo.com/cost-of-living/country_result.jsp?country=Kyrgyzstan
11.7. RUSSIA

Consumers can pay their bills online, by cash, check or using direct debit and using self-service terminals and mobile banking in certain banks.

Pravex Bank

Paying utility and other bills through the Internet
Owners of payment cards issued by PRAVEX-BANK can pay utility and other bills through the Internet without leaving their home or office via the Portmone system.

Holders of any Pravex-Bank card can:
Without going to the bank, queues, or leaving home or office, pay utility bills, local and intercity telephone communication services, mobile connection, cable television, analogue or digital television, Internet and other companies; promptly receive information on billing and bill payment by e-mail or mobile phone; receive payment confirmation - payment receipts to e-mail address.

Conditions of using the system:
bills payment is carried out by debiting funds from a payment card issued by PRAVEX-BANK, and their crediting to the account of the service-providing company during 1 work day; the subscription fee for the service is UAH 9.90 monthly (regardless of the paid bill amount). An additional commission fee for bill payments is not charged.

Otp Bank

Using the bank’s internet platform, consumers can:
Make Service payments (cell phones, utility bills, Internet, TV etc.)To make Domestic transfers in Russian rubles to any other Russian bank Transfer money between accounts Transfer money to other OTP Bank’s clients
An example of payment methods in Russia

Market size

About $124 of utility bills per month (excluding council tax). 52.7 million Households.

Utilities market = 124x12x52.7 million = $78 billion per year.

Sources

http://www.pravex.com/eng/pravex-online/icomunal
https://direkt.otpbank.ru/
http://vostokmedia.com/n135616.html
http://www.numbeo.com/cost-of-living/country_result.jsp?country=Russia&displayCurrency=USD